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AWOS Data Acquisition System (ADAS) Automated Lightning Detection and Reporting System (ALDARS) Operational Test and Evaluation (OT&E) Final Test Report

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December 1998

DOT/FAA/CT-TN98/23

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Federal Aviation Administration
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Atlantic City International Airport, NJ 08405

NOTICE

Technical Report Documentation Page

1. Report No. DOT/FAA/CT-TN98/23	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle AWOS Data Acquisition System (ADAS)/Automated Lightning Detection and Reporting System (ALDARS) Operational Test and Evaluation (OT&E) Final Report		5. Report Date December 1998
		6. Performing Organization Code ACT-320
7. Author(s) Donald Groot, ACT-320; Hugh Vuong, ACT-320; Ed Schlain, SRC; Jock Stratton, UAL		8. Performing Organization Report No. DOT/FAA/CT-TN98/23
9. Performing Organization Name and Address U.S. Department of Transportation Federal Aviation Administration William J. Hughes Technical Center Atlantic City International Airport, NJ 08405		10. Work Unit No. (TRAIS)
		11. Contract or Grant No.
12. Sponsoring Agency Name and Address U.S. Department of Transportation Federal Aviation Administration 400 7th Street, SW Room PL-100 Washington, DC 20590		13. Type of Report and Period Covered Technical Note
		14. Sponsoring Agency Code AUA-430
15. Supplementary Notes		

16. Abstract

The Federal Aviation Administration (FAA) Automated Weather Observation System (AWOS) Data Acquisition System (ADAS)/Automated Lightning Detection and Reporting System (ALDARS) Operation Test and Evaluation (OT&E) Final Test Report is prepared by the ADAS/ALDARS Test Director. This report provides the procedures, results, analysis, significant problems, and Problem Trouble Reports (PTR) for each test. The report also provides overall conclusions and recommendations that flow from the OT&E. The purpose of the ADAS/ALDARS project is to incorporate lightning data into the National Airspace System (NAS) via the Automated Surface Observation System (ASOS) AWOS One-Minute Observations (OMO) and the Aviation Routine Weather Report (METAR) and Aviation Selected Special Weather Report (SPECI) weather messages. This project also incorporated the capability for ADAS to generate METAR format weather messages and interface with the Integrated Terminal Weather System (ITWS). ADAS/ALDARS OT&E was performed to verify that all of the NAS level requirements associated with this project were correctly implemented. All testing was performed by the ACT-320 Weather Branch at the FAA William J. Hughes Technical Center.

17. Key Words AWOS Data Acquisition System (ADAS) Automated Lightning Detection and Reporting System (ALDARS) Operational Test and Evaluation (OT&E)		18. Distribution Statement This document is available to the public through the National Technical Information Service, Springfield, VA 22161	
19. Security Classif.(of this report) Unclassified	20. Security Classif.(of this page) Unclassified	21. No. of Pages 727	22. Price

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

ACKNOWLEDGMENTS

The William J. Hughes Technical Center Weather Branch, ACT-320, gratefully acknowledges the technical expertise and support of Edward Schlain and Jock Stratton in the performance of testing and the generation of this test report. Their dedication and hard work were instrumental in accomplishing these tasks. The Weather Branch also would like to acknowledge the support of Bob Chapman and Dan Casey (AOS-540) during OT&E and the contributions from Barbara Smith in putting this test report together.

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EXECUTIVE SUMMARY

This report provides the final test results of the Automated Weather Observation System (AWOS) Data Acquisition System (ADAS)/Automated Lightning Detection and Reporting System (ALDARS) Operational Test and Evaluation (OT&E). This testing was performed by the ACT-320 Weather Branch at the Federal Aviation Administration (FAA) William J. Hughes Technical Center and comprised two phases: OT&E #1 for ADAS/ALDARS software version 4.18 and OT&E #2 for ADAS/ALDARS software version 4.19. Software version 4.19 corrected all the Critical and Major problems identified in version 4.18 and some of the Moderate problems. ACT-320 recommends a positive deployment decision for the ADAS/ALDARS software build 4.19.

The ADAS/ALDARS version 4.18 software was the result of modifications to the original ADAS. These modifications were necessary because of three National Airspace System (NAS) Change Proposals (NCPs). The modifications resulted in the capability for ADAS to generate Aviation Routine Weather Report (METAR) format weather messages, process and disseminate National Lightning Detection Network (NLDN) lightning data, and interface with the Integrated Terminal Weather System (ITWS).

The following summarizes the contents of the Test Results, Conclusions, and Recommendations sections of the Final Report.

<u>Test Results</u>

During OT&E #1, the ADAS/ALDARS functionality was comprehensively tested. A total of 38 open Program Trouble Reports (PTR) were generated, of which 22 were classified as either Critical or Major. The remainder of these PTRs were designated as Moderate. OT&E #2 included both Regression testing and Correction testing. As a result of the Regression testing, seven PTRs were opened, none of which were Critical. The Correction test results indicate that 24 of the 26 OT&E #1 PTRs (of the 38 total opened), which were committed to be fixed, were properly corrected. Problems still exist for two OT&E #1 PTRs which were classified as Moderate. These PTRs remain open.

As a result of OT&E #1 and #2, a total of 21 open PTRs exist. This total is the sum of the 7 PTRs that remain open from the OT&E #2 Regression phase, the 2 PTRs which did not test successfully during the OT&E #2 Correction phase, and the 12 OT&E #1 PTRs which were not scheduled to be fixed until the ADAS/Year 2000 (Y2K) software build. None of the 21 open PTRs are classified as Critical, 9 PTRs are classified as Major, and 12 are classified as Moderate. Appendix B contains a description of all open PTRs.

Conclusions

Overall, the ADAS software version 4.19 is robust, and the original ADAS functionality, which tested successfully for versions 4.18 and 4.19, remains intact. All OT&E #1 PTRs designated as Critical were successfully tested and verified as corrected. No new Critical PTRs were generated during OT&E #2. A few Major PTRs remain open, but overall do not present a critical problem.

Recommendations

ACT-320 recommends a positive deployment decision for the ADAS/ALDARS software build 4.19. This decision is based on 2 criteria: (1) there are no outstanding Critical PTRs, and (2) all of the 21 open PTRs appear to be correctable. ACT-320 recommends that the remaining open ADAS software PTRs be corrected in the ADAS/Y2K software build and that the ADAS documentation PTRs be corrected before Y2K Development Test and Evaluation (DT&E) commences. ACT-320 recommends that all corrected software PTRs undergo thorough DT&E and OT&E to verify that the software modifications have been properly implemented.

1. INTRODUCTION.

This report provides the final test results of the National Airspace System (NAS) AWOS Data Acquisition System (ADAS)/Automated Lightning Detection and Reporting System (ALDARS) Operational Test and Evaluation (OT&E). ADAS designates the Automated Weather Observation System (AWOS) Data Acquisition System. ALDARS is an enhancement to ADAS. The objective of ALDARS is to augment the weather observations from AWOS by reporting the occurrence of lightning within 30 nautical miles (nmi) of the airport. Along with the ALDARS enhancement to ADAS, two additional enhancements were made: (1) ADAS conversion to the Aviation Routine Weather Report (METAR) format, and (2) ADAS communication with the Integrated Terminal Weather System (ITWS). All three enhancements were governed by approved NAS Change Proposals (NCP). The ADAS/ALDARS OT&E verified that the NAS-SS-1000 requirements associated with these enhancements were properly implemented.

The ADAS/ALDARS OT&E was performed by members of the ACT-320 Weather Branch at the Federal Aviation Administration (FAA) William J. Hughes Technical Center and comprised two phases: OT&E #1 for ADAS/ALDARS software version 4.18 and OT&E #2 for ADAS/ALDARS version 4.19. Software version 4.19 corrected all the Critical and Major problems, and some of the Moderate problems, identified in version 4.18. OT&E #1 was conducted during the period of July 25, 1997, through October 30, 1997, and OT&E #2 was conducted during the period January 5, 1998, through February 13, 1998. Both phases of the testing were conducted in the ADAS Operational Evaluation Facility (OEF) located at the FAA William J. Hughes Technical Center in Atlantic City, NJ.

The objectives of the OT&E #1 (software version 4.18) testing were to (1) verify new capabilities to insure that the ADAS/ALDARS met all the requirements set forth in the three governing NCPs (as further defined in section 1.3, Background), and (2) perform ADAS Regression testing to insure that the pre-existing ADAS functionality was not compromised by incorporation of the new capabilities. The objectives of the OT&E #2 (software version 4.19) testing were to (1) verify that the 26 (out of the 38 total opened) OT&E #1 PTRs (as listed in appendix B), which were committed to be fixed in software version 4.19, were corrected, and (2) by Regression testing, insure that all functions successfully tested during OT&E #1 (version 4.18) were also correctly implemented in version 4.19. These functions encompassed many functional categories including Lightning, METAR, and ITWS.

The ADAS operational environment for both phases of the OT&E testing closely replicated the environment at each Air Route Traffic Control Center (ARTCC). Actual National Lightning Data Network (NLDN) hardware was employed and live NLDN data used for

some parts of the testing. Additionally, some tests involved the use of simulated NLDN data from the Interactive Process Simulator (IPS). Also, the testing involved use of both live and IPS-simulated AWOS/Automated Surface Observation System (ASOS), Weather Message Switching Center Replacement (WMSCR), and the Maintenance Processor Subsystem (MPS). A simulated Coded Time Source (CTS) was used. Since the Weather and Radar Processor (WARP), ITWS, and Data Link Processor (DLP) interfaces do not presently exist, the IPS was used for the testing of the ADAS/WARP, ADAS/DLP, and ADAS/ITWS functionality. NOTE: The FAA does not plan to implement the DLP in its present state (see appendix E).

The ADAS/ALDARS new capabilities and Regression testing performed during OT&E #1 and the Correction and Regression testing performed during OT&E #2 covered the following functional Test Categories:

Category AL - Automated Lightning Tests
Category DE - Degraded Operations Tests (Error Handling)
Category DTE - DT&E tests incorporated into OT&E
Category IN - Integration Tests
Category IT - ITWS Tests
Category ME - METAR
Category MP - Maintenance Processing Tests (Note: This category was not performed since none of the OT&E #1 Test Trouble Reports were addressed in build 4.19).
Category OP - Operational Tests (Software Specification Review (SSR), Specialist Interface (SI) menus/response time, checkpoint processing)
Category PT - PTR and Site Issue Tests
Category RA - Reliability and Availability
Category ST - Stress Tests (Updated to reflect new configuration and maximum load requirements)
Category ADD - Additional Tests

1.1 PURPOSE OF REPORT.

The objectives of this OT&E Final Test Report are to:

a. Provide an accurate account of the combined results of both phases of OT&E testing which were conducted to verify compliance with three approved NAS Change Proposals (NCPs) as discussed in the Background section 1.3, below.

b. Explain the Critical and Major PTRs remaining after this testing.

c. Identify other system deficiencies as discussed in the Moderate or Minor PTRs resulting from this testing. Identify any time-critical items which may affect the life cycle or other aspects of the program.

d. Provide conclusions of this testing.

e. Provide either a deployment recommendation with substantiating reasons or an explanation of why such a recommendation cannot be made at this time such as Critical and/or Major deficiencies. In the case of a nondeployment recommendation, clarify the conditions under which a positive deployment recommendation could be made.

1.2 SCOPE OF REPORT.

The scope of this Final Report was defined by the following guidelines:

a. This Final Report will provide full details in substantiation of fulfilling the objectives as stated in the Purpose of Report, section 1.1.

b. Full analysis of the combined OT&E #1 and OT&E #2 testing results will be performed in realizing the objectives stated in the Purpose of Report, section 1.1.

1.3 BACKGROUND.

This Final Report applies to both phases of OT&E testing: OT&E #1 for ADAS/ALDARS software version 4.18, and OT&E #2 for ADAS/ALDARS software version 4.19.

The ADAS/ALDARS software version 4.18 addressed ADAS modifications/enhancements intended to achieve compliance with the following three approved NCPs:

a. NCP-16133 was approved on December 7, 1993, and pertains to the ALDARS. This NCP provides for the automatic detection of lightning strikes, and eliminates the need for manual observation of thunderstorms. This NCP requires ADAS to accept lightning data from the NLDN, filter and process this data, and transmit this data, via Lightning Activity Data (LAD) Messages, to the appropriate weather sensor subsystems (AWOS/ASOS).

b. NCP-17445 was approved on September 28, 1992, and pertains to the application of the METAR format to weather message contents. This NCP requires ADAS and ASOS to generate METAR format messages under appropriate conditions, and requires ADAS to process and disseminate incoming METAR format messages from ASOS.

c. NCP-17331 pertains to the incorporation of lightning data into the ITWS. This NCP integrates ALDARS data with ITWS, and specifies that the ADAS provide (transmit to) ITWS with AWOS format weather messages and Lightning Detection Data (LDD) messages.

These three NCPs, each of which affects ADAS, are anticipated to improve the FAA's automation of weather observation.

The ADAS/ALDARS software version 4.19 incorporates modifications/enhancements made to ADAS/ALDARS version 4.18. Most of these modifications/enhancements were made to resolve the PTRs generated as a result of the ADAS/ALDARS OT&E #1. Specifically version 4.19 is intended to fix all the version 4.18 Critical PTRs and most of the version 4.18 Major PTRs. Additionally, version 4.19 incorporates fixes to some of the version 4.18 Moderate PTRs. A Critical PTR is defined as a deficiency which will preclude a positive recommendation for deployment. A Major PTR is defined as a deficiency which may, in combination with other Major PTRs, preclude a positive deployment recommendation. A Moderate or Minor PTR is defined as a deficiency which does not preclude a deployment recommendation. The identification of all open PTRs and their specific status can be found in appendix B of this Final Report.

2. REFERENCE DOCUMENTS.

The following sections list the applicable documentation and reference materials used in the development of this document.

FAA DOCUMENTS.

FAA-STD-024b, Preparation of Test and Evaluation Documentation, was used for primary guidance in the development of this report.

FAA Standards:

FAA-STD-024b	Preparation of Test and Evaluation Documentation: August 22, 1994
1810.4B	FAA NAS Test and Evaluation Program (October 1992)

NAS Documents:

NAS-DD-1000	NAS Level I Design Document
NAS-SR-1000	NAS System Requirements Specification (SRS)
NAS-SS-1000	NAS System Specification
NAS-MD-110	Test and Evaluation (T&E) Terms and Definitions for the National Airspace System (March 27, 1987)
NAS-MD-792	Operational Requirements for the Remote Maintenance Monitoring System (RMMS) (June 1984)

NAS-MD-793	RMMS Functional Requirements for the RMS (February 28, 1986)

Other Documents:

NCP-17445	FAA's Conversion to Aviation Routine Weather Report (METAR) and Terminal Aerodrome Forecast (TAF) Weather Messages (September 28, 1992)
NCP-16133	Automated Thunderstorm Detection Requirements for ASOS and ADAS (December 7, 1993)
NCP-17331	Integrated Terminal Weather System (ITWS) Requirements for ADAS (October 24, 1994)

3. SYSTEM DESCRIPTION.

3.1 MISSION REVIEW.

The AWOS ADAS is a weather processing subsystem of the Air Traffic Control (ATC) NAS. The ADAS collects, archives, processes, and disseminates data acquired from various AWOSs AWOS-ASOSs, Federal AWOS, and Non-Federal AWOS) in the NAS.

An ADAS system is located in each of the 22 Air Route Traffic Control Centers /Area Control Facilities (ARTCC/ACF). Each ADAS acquires surface weather observation data from up to 137 ASOSs/AWOSs within the ADAS local area via multidrop communications links, and processes and disseminates the data to WARPs, the ITWS, the WMSCR, and to DLPs. The ADAS acquires LDD from the NLDN, and generates and transmits LAD messages to AWOS and ASOS. LDD messages are transmitted to ITWS. The ADAS, in conformance with the RMMS requirements, incorporates a Remote Monitoring System (RMS) capability, and transmits maintenance data to the MPS in response to commands from the MPS.

3.2 TEST SYSTEM CONFIGURATION.

As discussed in section 1, Introduction, the OT&E testing comprised two phases: OT&E #1 for ADAS/ALDARS software version 4.18 and OT&E #2 for ADAS/ALDARS version 4.19. All of the Critical and most of the Major PTRs opened during OT&E #1 were resolved in version 4.19, and this is essentially the software which will be used in the operational system. The hardware used during both OT&E phases is identical to that of the operational system, except that some of the interfaces were simulated rather than "live." The interfaces used during the testing are discussed in section 3.3, Interfaces.

The ADAS hardware architecture consists of the following four major components: Processor Assembly, Input/Output (I/O) Communications Controllers, System Control Peripherals, and NLDN Data Reception Hardware.

a. Processor Assembly - The Processor Assembly comprises seven Line Replaceable Units (LRU's):

1. One single board computer with 32-megahertz (MHz) processing power, 16-megabytes (MB) main memory, Small Computer Systems Interface (SCSI) mass storage controller, four serial interfaces, and one parallel printer port.

2. One fixed disk drive with 172-MB formatted capacity, 16.5-millisecond (ms) average access time, and 1.25 MB per second transfer rate.

3. One cartridge tape drive with 150 MB capacity and 112-kilobytes (Kb) per second transfer rate.

4. One floppy disk drive with 650 Kb formatted capacity.

5. One Versa Module (VME) chassis including backplane and fans, rack mountable, with 12 VME bus slots for plug-in boards plus space for mass storage devices.

6. One 115-vac/60-hertz (Hz) power supply with 650 watts output capacity.

7. One remote maintenance interface (I/F) dial-up mode, providing up to 2400-bits per second (bps) transfer rate.

b. I/O Communications Controllers - The communications controllers comprise:

1. An X.25 communications controller for communications, via the National Airspace Data Interface Network (NADIN), with the WMSCR, WARP, ITWS, MPS, and DLP.

2. Eight six-channel communications controllers for High Level Data Link Control (HDLC) Normal Response Mode (NRM) Multidrop communications with AWOS (AWOS/ASOS/AOS), and allowing, for up to 10 AWOSs on each assigned channel.

3. Two four-channel RS232C communications controllers used to input NLDN lightning strike data, and for communications with the peripheral devices such as terminals and printers.

4. Communications Transition Modules (CTM) which are applied to the communications controllers and provide the physical interface (electrical/mechanical) interface to the circuits served by the controllers.

c. System Control Peripherals - The System Control Peripherals comprise two types:

1. Two Video Display Terminals, one for the UNIX Console and one for the ADAS Specialist Console.

2. Two printers (280 characters per second (cps)), one for the System Event Log and one for the ADAS Specialist Console Log.

d. NLDN Data Reception Hardware - The ADAS NLDN Data Reception Hardware comprises:

1. An antenna dish with Low Noise Block

2. An interfacility link cable

3. A data receiver and buffer.

The ADAS software architecture is based on one Computer Software Configuration Item (CSCI) which comprises the following 15 Top Level Computer Software Components (TLCSCs).

a. Communications Control (CCN) - Coordinates the sequencing of the other communications TLCSCs.

b. Communications Time Processing (CTM) - Manages the interface to CTS and maintains ADAS system time.

c. Communications High Level Data Link Control (HDLC) Processing (CHD) - Manages the connections to the AWOS stations and the transfer of data to and from the AWOS stations.

d. Communications DLP/WARP Processing (CDL) - Manages the connection to DLP and WARP and controls the dissemination of AWOS data to these devices.

e. Communications WMSCR Processing (CWM) - Manages the connection to WMSCR and disseminates METAR format messages to WMSCR.

f. Communications Maintenance Processor Subsystem (MPS) Processing (CMP) - Manages the connection to MPS and controls the transfer of data to and from the MPS.

g. Communications ITWS Processing (CIT) - Manages the logical connection to all configured ITWS, and disseminates AWOS format messages and LDD messages to these systems.

h. Weather Data/Conversion Processing (WDP) - Performs trend analysis of AWOS format messages, and generates special, periodic, and hourly METAR format messages.

i. Weather Storage Processing (WSP) - Performs archival processing for storage and retrieval handling of Metar messages.

j. Maintenance Processing (MP) - Generates performance reports, alarms, alerts, and state change messages in support of the MPS.

k. System Log (SL) - Accepts error messages and events from all TLCSCs and enters them in the error and event logs.

l. Mission Cycle Control (MCC) - Controls and sequences the 1-minute mission cycle.

m. Startup Shut down Recovery (SSR) - Handles system initialization, shut down, and general process control of all TLCSCs.

n. Specialist Interface (SI) - Provides an interface to allow the ADAS specialist to access and control the ADAS system.

o. Lightning Processing (LHT) - Manages the logical connection to the commercial NLDN, performs flash and geographical screening on incoming LDD messages, generates LAD messages for distribution to lightning configured AWOS sites, and maintains internal RMS data points for delivery to the MP TLCSC upon request.

3.3 INTERFACES.

As mentioned in section 1, Introduction, much of the ADAS/ALDARS OT&E testing involved use of the Interactive Process Simulator (IPS) to simulate those interfaces not operational ("live"). In the following discussion of the interfaces employed during the OT&E testing, the extent of IPS usage will be identified.

a. AWOS/ASOS - The Operational ADAS/ALDARS involves a maximum configuration of 50 ASOS and 25 AWOS stations connected to ADAS/ALDARS via the eight six-channel HDLC multidrop communications controllers. Up to 10 stations can be connected to any one of the 48 channels. However, only three "live" stations were available during the testing - two AWOS type and one ASOS type. Therefore, much of the testing involved IPS-simulation of these stations. Intensive use was made of the "live" stations to verify the link protocol(HDLC - NRM), command/response timing, and the correctness of the processing of the LAD messages sent them.

The IPS was used to (1) simulate multidrop configurations, (2) simulate various message scenarios involving the generation of different message types (METAR, Aviation Selected Special Weather Report (SPECI), Standard Hydrological Exchange Format (SHEF)) from ASOS stations and AWOS format messages from AWOS stations which would precipitate conversion to METAR by the ADAS/ALDARS,

and (3) simulate the maximum connected load at an operational site for stress testing the ADAS/ALDARS Central Processing Unit (CPU) processing capability and 1-minute mission cycle compliance.

b. NLDN - The ADAS/ALDARS OT&E included tests with the "live" NLDN source as well as tests with IPS-simulated NLDN data. Tests with the "live" NLDN confirmed proper operation of the NLDN reception hardware. Proper operation of the lightning processing software was confirmed by adjusting the coordinates of the "live" AWOS stations in the test to conform to the incoming lightning data. Tests with IPS-simulated data enabled the evaluation of the ADAS processing of concurrent lightning strikes in different geographical areas, and in different sectors and zones.

c. WMSCR - The ADAS/ALDARS OT&E included tests with the IPS-simulated WMSCR as well tests with a "live" WMSCR located at the Technical Center. Since the ADAS has only one X.25 port available, the simulated WMSCR had to be used whenever the ADAS/ALDARS tests involved other ADAS X.25 users which were not available as "live," i.e., WARP, ITWS, DLP, and MPS (when "live" MPS was not available. Since ADAS communicates with the X.25 users via NADIN II, the IPS simulated NADIN II to the extent necessary. ADAS/ALDARS testing with the "live" WMSCR, via the test NADIN II Node located at the Technical Center, demonstrated the ADAS/ALDARS capability to function with the actual hardware.

d. MPS - The ADAS/ALDARS OT&E also included tests with the IPS-simulated MPS as well as the "live" MPS located at the Technical Center. The rationale underlying when testing was done with the "live" MPS via the Technical Center NADIN II Node versus with the IPS-simulated MPS and simulated NADIN II node is essentially the same as for the WMSCR stated above.

e. WARP, ITWS, DLP - The ADAS/ALDARS OT&E employed the IPS simulator for all tests involving the WARP, ITWS, and DLP due to the unavailability of these subsystems at present. NOTE: The FAA does not plan to implement the DLP in its present state (see appendix E).

4. TEST AND EVALUATION DESCRIPTION.

4.1 TEST SCHEDULE AND LOCATIONS.

Both phases of the ADAS/ALDARS OT&E testing, designated OT&E #1 and OT&E #2 were performed at the FAA William J. Hughes Technical Center. OT&E #1 was conducted during the period July 25, 1997, through October 30, 1997, and OT&E #2 was conducted during the period January 5, 1998, through February 13, 1998.

4.2 PARTICIPANTS.

Both phases of the ADAS/ALDARS OT&E testing were conducted by members of the ACT-320 Weather Branch. Personnel involved:

Don Groot - Test Director and ALDARS Processing Testing
Ed Schlain - Communications Interfaces Testing (OT&E #2 only)
Jock Stratton - Degraded Operations, METAR, Operational, and Stress Testing
Hugh Vuong - Communications Interfaces Testing

Note: ACT-330 personnel performed RMS testing. See appendix D for further details.

4.3 TEST AND SPECIALIZED EQUIPMENT.

Various test and specialized equipment were employed during both OT&E #1 and OT&E #2. A patch panel was utilized to facilitate establishing a variety of test connections and four Protocol Analyzers were used to monitor and store data exchanged on the AWOS circuits and on the X.25 circuit to NADIN II. The patch panel permitted, via a plug-in patch cord, the ready connection of any of the three "live" AWOS circuits (each with one station) and the "live" X.25 circuit to any of the four Protocol Analyzers. This was an important facility since the Protocol Analyzers differed with respect to the features offered; e.g., data display format; on-screen interpretation of the data displayed including protocol commands, responses, and error conditions; capability of storing the data exchanged on the communications link; and the capability to playback and interpret this data on a personal computer (PC). The patch panel also facilitated the diversion of an ADAS/ALDARS American Standard Code for Information Interchange (ASCII) data stream printer output to a PC which would capture this information in a file established with the ProcomPlus software.

The Protocol Analyzers employed included two Telebyte PC Comscope Model 904, one Interview 7200 Turbo, and one Digilog Model 900.

4.4 TEST DETAILS.

4.4.1 Category AL - ALDARS.

4.4.1.1 Test AL-01A - ALDARS Interface.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A). In order to meet this objective, this test used a simulated valid LDD Flash Messages and 15 simulated AWOS stations to verify that ADAS:

a. established and maintained receive-only communications,

b. properly received valid data input messages.

4.4.1.1.1 Description.

The IPS was configured to correspond to the ADAS configuration including the simulation of 5 circuits with 15 AWOS stations. One circuit had 10 stations (drops). The other four circuits had five stations. The reason to simulate 15 stations was to simulate an ADAS operational environment. This served to verify that the ADAS software/hardware (SW/HW) could properly service a NLDN together with many (simulated) AWOS stations. Additionally, IPS was configured to simulate one ITWS, and one Lightning Script which contained valid LDD Flash Messages.

4.4.1.1.2 Data Reduction and Analysis Method.

The data file on the Data Capture PC (PC1) that captured IPS data contained the following:

HEX display printouts for ITWS1 LDD
NLDN LDD MESSAGES file: oAL-01AA.NLDN
ITWS1 LDD MESSAGES file: iAL-01AA.LDD

The data file on the Data Capture PC (PC2) that captured ADAS data contained the following:

a. The Communications Datapoint file is AL-01A.com:

The NLDN Communications Datapoint
The ITWS1 Communications Datapoint

b. The Event Log file is AL-01A.evt

61 -- EVENT Log for status of the ITWS connection has changed.
62 -- EVENT Log for status of the NLDN connection has changed.

The HEX printouts and NLDN LDD message file were used to verify that the ADAS/ITWSs properly received valid LDD input messages:

a. Application Data Unit (ADU) maximum size did not exceed 4096 bytes per ADU

b. The single ADU contained only LDD data

c. The ADU World Meteorological Organization (WMO) (envelope head, abbreviated heading and tail) containing only LDD data was properly formatted and fields were correct.

The test data in the NLDN LDD Messages out file and the ITWS1 LDD Incoming Message Log (IML) file were examined to verify that the LDD bound for ITWS moved through the ADAS within 5 seconds.

Reviewed the ADAS Event Log for events pertinent to this test, particularly Event Types (61, 62).

Reviewed the Communications Datapoint obtained from the ADAS SI to verify the ADAS/NLDN Interface and ADAS/ITWSs Interface.

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.1.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test AL-01A.

4.4.1.1.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test AL-01A.

4.4.1.1.3.2 Significant Problems.

None

4.4.1.1.3.3 PTRs Generated.

None

4.4.1.2 Test AL-01B - ALDARS Interface.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A). In order to meet this objective, this test used the simulated valid LDD Flash Messages with maximum length (20 Flash Records) and 15 simulated AWOS stations to verify that ADAS:

a. established and maintained receive-only communications,
b. properly received valid data input messages.

4.4.1.2.1 Description.

The IPS was configured to correspond to the ADAS configuration, including the simulation of 5 circuits with 15 AWOS stations. One circuit had 10 stations (drops). The other four circuits had five stations. The reason to simulate 15 stations was to simulate an ADAS operational environment. This served to verify that the ADAS software/hardware (SW/HW) could properly communicate with the NLDN and many (simulated) AWOS stations. Additionally, the IPS was configured to simulate 1 ITWS, and the

Lightning Simulator Script which contained a valid LDD Flash Messages with maximum length (20 Flash Records).

4.4.1.2.2 Data Reduction and Analysis Method.

The data file on the Data Capture PC (PC1) that captured IPS data contained the following:

HEX display printouts for ITWS1 LDD
NLDN LDD MESSAGES file: oAL-01BA.NLDN
ITWS1 LDD MESSAGES file: iAL-01BA.LDD

The data file on the Data Capture PC (PC2) that captured ADAS data contained the following:

a. The Communications Datapoint file is AL-01B.com:

The NLDN Communications Datapoint
The ITWS1 Communications Datapoint

b. The Event Log file is AL-01B.evt

61 -- EVENT Log for status of the ITWS connection has changed.
62 -- EVENT Log for status of the NLDN connection has changed.

The HEX printouts and NLDN LDD message file were examined to verify that the ADAS/ITWSs properly received valid LDD input messages:

1. ADU maximum size did not exceed 4096 bytes per ADU

2. The single ADU contained only LDD data

3. The ADU WMO (envelope head, abbreviated heading and tail)containing only LDD data was properly formatted and fields were correct.

The test data in the NLDN LDD Messages out file and the ITWS1 LDD (IML) file were examined to verify that the LDD bound for ITWS moved through the ADAS within 5 seconds.

Reviewed the ADAS Event Log for events pertinent to this test, particularly Event Types (61, 62).

Reviewed the Communications Datapoint obtained from the ADAS SI to verify that the NLDN and the ITWSs properly interfaced with ADAS.

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.2.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test AL-01B.

4.4.1.2.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test AL-01B.

4.4.1.2.3.2 Significant Problems.

None

4.4.1.2.3.3 PTRs Generated.

None

4.4.1.3 Test AL-01C - ALDARS Interface.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A). In order to meet this objective, this test used a simulated valid/invalid LDD Flash Messages and 15 simulated AWOS stations to verify that the ADAS:

a. established and maintained receive-only communications,
b. properly received valid data input messages,
c. detected error conditions in the data input stream.

4.4.1.3.1 Description.

The IPS was configured to correspond to the ADAS configuration, including the simulation of 5 circuits with 15 AWOS stations. One circuit had 10 stations (drops). The other four circuits had five stations. The reason to simulate 15 stations was to simulate an ADAS operational environment. This served to verify that the ADAS software/hardware (SW/HW) could properly communicate with the NLDN and many (simulated) AWOS stations. Additionally, the IPS was configured to simulate one ITWS and one Lightning Simulator Script which contained valid LDD Flash Messages and invalid LDD Flash Messages of various types. These valid/invalid Flash Messages were simulated simultaneously.

4.4.1.3.2 Data Reduction and Analysis Method.

The data file on the Data Capture PC (PC1) that captured IPS data contained the following:

HEX display printouts for ITWS1 LDD

NLDN LDD MESSAGES file: oAL-01CA.NLDN
ITWS1 LDD MESSAGES file: iAL-01CA.LDD

The data file on the Data Capture PC (PC2) that captured ADAS data contained the following:

a. The Communications Datapoint file is AL-01C.com:

The NLDN Communications Datapoint
The ITWS1 Communications Datapoint

b. The Event Log file is AL-01C.evt

61 -- EVENT Log for status of the ITWS connection had changed.
62 -- EVENT Log for status of the NLDN connection had changed.
21 -- EVENT Log for status of the erroneous message, had been triggered by system logging.

The HEX printouts and NLDN LDD message file were examined to verify that the ADAS/ITWSs properly received valid LDD input messages:

1. ADU maximum size did not exceed 4096 bytes per ADU
2. The single ADU contained only LDD data
3. The ADU WMO (envelope head, abbreviated heading and tail) containing only LDD data was properly formatted and fields were correct.

The test data in the NLDN LDD Messages out file and the ITWS1 LDD (IML) file were examined to verify that the LDD bound for ITWS moved through the ADAS within 5 seconds.

Reviewed the ADAS Event Log for events pertinent to this test, particularly Event Types (61, 62, 21).

Reviewed the Communications Datapoint obtained from the ADAS SI to verify that the NLDN and the ITWSs properly interfaced with ADAS.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.3.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test AL-01C.

4.4.1.3.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test AL-01C.

4.4.1.3.3.2 Significant Problems.

None

4.4.1.3.3.3 PTRs Generated.

None

4.4.1.4 Test AL-01D - ALDARS Interface.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A). In order to meet this objective, this test used 50 simulated AWOS stations and "live" NLDN to verify that ADAS:

a. established system timing constraints,

b. Electrically/mechanically interfaced properly with the "live" NLDN.

c. detected error conditions in the data input stream,

d. properly received valid data input messages,

e. properly maintained performance data points reflecting the status/condition of the NLDN/ ADAS interface.

4.4.1.4.1 Description.

The ADAS was configured to correspond to the IPS with a "live" NLDN (interface) configuration. Additionally, the ADAS was configured to geographically cover the continental U.S. This was accomplished by accessing the site adaptation data using the ADAS Specialist Console(ASC). With the ADAS configured in this way, the ITWS simulators received all LDD Flash Messages. This allowed for easier verification that ADAS properly disseminated LDD Flash Messages to ITWS.

The IPS was configured to correspond to the ADAS configuration including the simulation of 20 circuits with 50 AWOS stations. Simulated circuit connectivity spreader over all eight Interface Control Cards (ICCs) and with a mixture of Direct Memory Access (DMA) and Interrupt Request (IRQ) SW Handling channels. One simulated channel had 10 stations (drops). The other 19 channels had a total of 40 stations. The reason to simulate 50 stations was to simulate an ADAS operational environment. This served to verify that the ADAS SW/HW could properly service, in compliance

with established system timing constraints and throughput requirements, an NLDN together with many (simulated) AWOS stations. Additionally, the IPS was configured to simulate six ITWSs.

A Line Monitor/Protocol Analyzer (LMPA) connected in series with the ADAS/NLDN Monitor port. The LMPA data recorded were examined to verify that the LDD Messages transmitted from "live" NLDN to ADAS.

4.4.1.4.2 Data Reduction and Analysis Method.

The data file on the Data Capture PC (PC1) that captured IPS data contained the following:

HEX display printouts for ITWS1 LDD
HEX display printouts for ITWS6 LDD
ITWS1 LDD MESSAGES file: iAL-01AA.LDD
ITWS1 LDD MESSAGES file: iAL-01AA.LDD

The data file on the Data Capture PC (PC2) that captured ADAS data contained the following:

a. The Communications Datapoint file is AL-01D.com:

The NLDN Communications Datapoint
The ITWS1 Communications Datapoint
The ITWS6 Communications Datapoint

b. The Event Log file is AL-01D.evt

61 -- EVENT Log for status of the ITWS connection had changed.
62 -- EVENT Log for status of the NLDN connection had changed.
21 -- EVENT Log for status of the erroneous message, had been triggered by system logging.

The LMPA data captured transferred to the Data Capture PC (PC3) by using Procomm Plus software. The file named is an AL-01D.lmp.

The "AL-01D.lmp" file and ITWS(1,6) LDD incoming message file were examined to verify that the "live" NLDN properly interfaced with ADAS. Verifications consisted of the ADAS SW/HW which properly accepted and interpreted the NLDN data stream with the characteristics: serial, asynchronous, 1200 baud rate, 8 data bits, 1 stop bit, and no parity.

The HEX printouts were used to verify that the ADAS/ITWS properly received valid LDD input messages:

1. ADU maximum size did not exceed 4096 bytes per ADU

2. The single ADU contained only LDD data

3. The ADU WMO (envelope head, abbreviated heading and tail) containing only LDD data was properly formatted and fields were correct.

Reviewed the ADAS Event Log for events pertinent to this test, particularly Event Types (05, 61, 62, 21).

Reviewed the Communications Datapoint obtained from the ADAS SI to verify that the NLDN and ITWSs properly interfaced with ADAS.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.4.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test AL-01D.

4.4.1.4.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test AL-01D.

4.4.1.4.3.2 Significant Problems.

During OTE#1, NLDN Interface test AL-01D, the communication status between NLDN and ADAS failed (refer to PTR OTE-001). DME Corporation (DME) corrected the problem by updating the software. DME also updated the hardware setting in the serial buffer box. During the DT&E#2 and OT&E#2, the problem detailed in PTR OTE-001 was verified as corrected. However, a new PTR OTE-047 was generated. The ADAS/ALDARS documentation for the NLDN buffer box did not provide either setup procedures or technical information for the box's four configuration dip switches. ADAS operational setup required specific settings to configure the buffer box to properly interface ADAS with the NLDN.

4.4.1.4.3.3 PTRs Generated.

See appendix B for complete PTR details. The PTRs generated with respect to this test are:

Critical PTR(s):	OTE-001	- CLOSED
Moderate PTR(s):	OTE-047	- OPEN

4.4.1.5 Test AL-02A.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet this objective, this test verified that:

a. ADAS could process, store, and maintain a database to keep track of AWOSs, ASOSs, and ITWSs that were enabled to receive NLDN lightning data.

b. ADAS could properly determine the proximity of lightning strikes and generate a message for each AWOS/ASOS when the lightning strikes were within the defined geographical areas surrounding the AWOS/ASOS.

c. ADAS maintained status of lightning activity movement and identified cessation of lightning activity for each AWOS/ASOS.

d. ADAS maintained a count of lightning strikes for the last 15 minutes for each of the 10 zones/sectors about the AWOS/ASOS Airport Reference Point (ARP). [NOTE: ADAS maintained these counts internally and, therefore, it could only be determined through code inspections. Code inspections were performed at DT&E and were not performed during OT&E. However, ADAS LAD messages do maintain a 15-minute persistence for lightning activity for each zone/sector. This capability was verified during OT&E.]

4.4.1.5.1 Description.

This scenario focused on one out of the five simulated AWOSs. The IPS sent flash records that fell into each of the 10 possible AWOS zones/sectors. Each of these simulated lightning strikes fell on a boundary between zones/sectors.

The IPS was scripted using the Standard and Specified Flash Message. Flash messages contained 10 flashes with 1 flash falling along the boarder for each of the 10 zones/sectors for the AWOS. These flash messages were generated every 16 minutes to allow for the 15-minute persistence to clear out the LAD messages. The flash locations in each zone/sector were varied to stress the boundary conditions. Since the IPS had limitations of only placing flashes at whole integer nmi distances and whole integer degrees from the ARP, boundary conditions, in some cases, could only be marginally stress tested.

4.4.1.5.2 Data Reduction and Analysis Method.

NOTE: Actual analysis may find that some messages do not occur at the minutes indicated below. This is the result of the delay of the IPS sending out LDD messages as the script progresses through

its life cycle. The following is a description as to why this occurs.

At the beginning of the script, the LDD flash messages are sent to ADAS at the beginning of the minute or mission cycle. As the script progresses, the LDD flash messages experience a delay in being sent to ADAS and, therefore, are sent to ADAS later and later into the minute/mission cycle. As a result, when the script first starts, the LDD messages sent at the top of the minutes get processed by ADAS during that minute's mission cycle. But at some point during the life of the script, the LDD message will be sent to ADAS too late into the mission cycle and as a result will not get processed during that minute's mission cycle. When this occurs the LDD message will not get processed until the next minute's mission cycle and, therefore, it appears as if ADAS "skipped" processing LDD messages for 1 minute.

LAD messages:

The LAD messages were logged on the IPS as part of the AWOS incoming message log. Analysis of the LAD messages sent indicated:

minutes 1 - 15, 17 - 31, 33 - 47, 49 - 63, 65 - 79, and 81 - 95: flash occurred in each zone/sector (NOTE: Because of the numerical rounding some border line cases did not indicate a flash in particular zones and sectors. See PTRs OTE-025, OTE-026, and OTE-027).

minutes 95 - 111: flash occurred in zones 1 and 2.

minutes 16, 32, 48, 64, 80, 96, and 112: no flashes occurred in each zone/sector.

For the ITWS:

The LDD messages were logged on the IPS for each ITWS as part of their incoming message log. Analysis of the ITWS's LDD messages indicated that each of the lightning flash records were passed along, since each flash passed the rough geographic screening. As a result, the LDD contained for:

minute 1, 17, 33, 49, 65, 81, and 97 - all 10 flash records sent by NLDN simulator.

For this test, 13 out of 13 Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.5.3 Results and Discussion.

4.4.1.5.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria Cross Reference (CR) numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.5.3.2 Significant Problems.

1. During OT&E #1, test AL-02A, there were a number of lightning strikes that were not reported in the appropriate LAD messages. These lightning strikes were all located along the border between different zones/sectors. DME investigated this problem and found that this was the result of computer rounding errors. This problem was classified as Major, but has been closed. (Refer to PTR OTE-025, OTE-026, and OTE-027.)

4.4.1.5.3.3 PTRs Generated.

See appendix B for the complete PTR details. The PTRs generated with respect to this test are:

Major: OTE-025 - Closed
OTE-026 - Closed
OTE-027 - Closed

4.4.1.6 TEST AL-02B.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet these objectives, this test verified that:

a. ADAS could process, store, and maintain a database to keep track of AWOSs, ASOSs, and ITWSs that were enabled to receive NLDN lightning data.

b. ADAS could properly determine the proximity of lightning strikes and generate a message for each AWOS/ASOS when the lightning strikes were within the defined geographical areas surrounding the AWOS/ASOS.

c. ADAS maintained the status of lightning activity movement and identified the cessation of lightning activity for each AWOS/ASOS.

d. ADAS maintained a count of lightning strikes for the last 15 minutes for each of the 10 zones/sectors about the AWOS/ASOS Airport Reference Point (ARP) [NOTE: ADAS maintained these counts internally and, therefore, it could only be determined through code inspections. Code inspections were

performed at DT&E and were not performed during OT&E. However, ADAS LAD messages maintained a 15-minute persistence for lightning activity for each zone/sector. This capability was verified during OT&E.]

e. AWOS/ASOS received the once per minute LAD data sent by ADAS and identified thunderstorms in the surface observations by reporting it when the lightning was presently active.

f. AWOS/ASOS correctly reported the lightning activity, as defined in the ADAS LAD message, "at the airport" when the lightning was at 5 nmi and within 5 nmi of the ARP.

g. AWOS/ASOS correctly reported the lightning activity, as defined in the ADAS LAD message, "in vicinity of the airport" when the lightning occurred within a ring of radius greater than 5 nmi and less than or equal to 10 nmi of the ARP.

h. AWOS/ASOS correctly reported the appropriate sector directional designator for the lightning activity, as defined in the ADAS LAD message, when lightning was between 10 and 30 nmi of the ARP.

4.4.1.6.1. Description.

This scenario involved one live AWOS, one live ASOS, and one simulated AWOS. The two live stations replicated the simulated station with the same latitude and longitudes (Note: The ADAS does not allow them to be exactly the same, therefore, the latitudes were off by .05 minutes.) As a result, the log files for the simulated station were used to verify the data sent to the live stations. The live AWOS and ASOS were necessary to verify that the AWOS and ASOS properly encoded the LAD messages sent by ADAS. The IPS sent the same flash messages for all sites. This entailed single strikes in multiple zones and sectors, in various combinations, to ensure that ADAS generated the appropriate LAD messages. Determination was made that the live AWOS and ASOS properly reported the correct messages.

The following is a description of the scenario that was performed for the AWOSs and the ASOSs. The IPS was scripted using the Standard and Specified Flash Message and designed with a delay to allow for initialization. The script generated combinations of flashes in order that processing could be performed for multiple strikes.

4.4.1.6.2 Data Reduction and Analysis Method.

NOTE: Actual analysis may find that some messages do not occur at the minutes indicated below. This is the result of the delay of the IPS sending out LDD messages as the script progresses through its life cycle. The following is a description as to why this occurs.

At the beginning of the script, the LDD flash messages are sent to ADAS at the beginning of the minute or mission cycle. As the script progresses, the LDD flash messages experience a delay in being sent to ADAS and, therefore, are sent to ADAS later and later into the minute/mission cycle. As a result, when the script first starts, the LDD messages sent at the top of the minutes get processed by ADAS during that minute's mission cycle. But at some point during the life of the script, the LDD message will be sent to ADAS too late into the mission cycle and as a result will not get processed during that minute's mission cycle. When this occurs the LDD message will not get processed until the next minute's mission cycle and, therefore, it appears as if ADAS "skipped" processing LDD messages for 1 minute.

LAD messages:

Configuration 66 was set up for the live AWOS and ASOS to have a corresponding AWOS simulator. As a result, the LAD messages were logged on the IPS as part of the AWOS incoming message log. These logged messages were used to verify that the messages for the live AWOS and ASOS were correct.

Analysis of the LAD messages sent verified the following:

minutes 1 and 2 - lightning in zone 1 and sector 7
minutes 3 and 4 - lightning in zone 1 and sectors 6 and 7
minutes 5 to 15 - lightning in zone 1 and sectors 5, 6, and 7
minutes 16 and 17 - lightning in zone 1 and sectors 5 and 6
minutes 18 and 19 - lightning in zone 1 and sectors 4, 5, and 7
minutes 20 to 32 - lightning in zone 1 and sectors 2, 4, and 7
minutes 33 and 34 - lightning in zone 1 and sectors 2, 3, 4, and 5
minutes 35 to 47 - lightning in zone 2 and sectors 1, 3, 4, and 5
minutes 48 and 49 - lightning in zone 2 and sectors 1, 2, 4, and 5
minutes 50 to 62 - lightning in zone 2 and sectors 2, 4, 5, and 8
minutes 63 and 64 - lightning in zone 2 and sectors 1, 3, 6, 7, and 8
minutes 65 to 77 - lightning in zone 2 and sectors 1, 3, 6, and 7
minute 78 to 92 - lightning in zone 2 and sector 3
minute 93 - no lightning occurred.

SPECIs at:

minutes 1, 6, 21, 36, 51, 81

For the live AWOS/ASOS:

Determination that the live AWOS and ASOS correctly incorporated the LAD messages was done through inspection of the 1-minute AWOS format messages that ADAS received from the AWOS and ASOS. This information was found in the DLP file which contained the AWOS format 1-minute messages. Below is a description of what was included in the AWOS/ASOS 1-minute messages.

The DLP file was logged on the IPS. Analysis of the DLP file indicated that flashes occurred as follows:

minutes 2 and 3 - lightning "AT THE AIRPORT" and "LTG DSNT W"
minutes 4 to 5 - lightning "AT THE AIRPORT" and "LTG DSNT SW & W"
minutes 6 to 16 - lightning "AT THE AIRPORT" and "LTG DSNT S - W"
minutes 17 and 18 - lightning "AT THE AIRPORT" and "LTG DSNT S & SW"
minutes 19 and 20 - lightning "AT THE AIRPORT" and "LTG DSNT SE - W"
minutes 21 to 33 - lightning "AT THE AIRPORT" and "LTG DSNT NE & SE & W"
minutes 34 and 35 - lightning "AT THE AIRPORT" and "LTG DSNT NE - S"
minutes 36 to 48 - lightning "VICINITY" and "LTG DSNT ALQDS" (1d hex)
minutes 49 and 50 - lightning "VICINITY" and "LTG DSNT ALQDS" (1b hex)
minutes 51 to 63 - lightning "VICINITY" and "LTG DSNT ALQDS" (9a hex)
minutes 64 and 65 - lightning "VICINITY" and "LTG DSNT ALQDS" (e5 hex)
minutes 66 to 78 - lightning "VICINITY" and "LTG DSNT ALQDS" (65 hex)
minute 79 to 93 - lightning "VICINITY" and "LTG DSNT E"
minute 94 - no lightning occurred.

SPECI bit:

minutes 2, 7, 22, 37, 52, 82

Also, starting at minute 2 there was an Automated Remark, TSBxx, to indicate the beginning of the thunderstorm. This remark was maintained until the next hour was reached. Once the hour was reached, the TSBxx was dropped. No TSExx was recorded since the test ended before it was generated.

For the ITWS:

The LDD messages was logged on the IPS for each ITWS as part of their incoming message log. Analysis of the ITWS's LDD messages indicated that each of the lightning flash records had been passed along (since each flash passed the rough geographic screening). Inspection of the LDD messages verified the following:

minute 1 - flash for zone 1 and sector 7.
minute 3 - flash for zone 1 and sector 6.
minute 5 - flash for zone 1 and sector 5.
minute 18 - flash for zone 1 and sectors 4 and 7.
minute 20 - flash for zone 1 and sector 2.
minute 33 - flash for sectors 3, 4, and 5.
minute 35 - flash for zone 2 and sector 1.
minute 48 - flash for zone 2 and sector 2, 4, and 5.
minute 50 - flash for zone 2 and sector 8.
minute 63 - flash for zone 2 and sectors 1, 3, 6, and 7.
minute 78 - flash for zone 2 and sector 3.

For this test, 36 out of 37 Evaluation Criteria fully passed and 1 out of 37 Evaluation Criteria partially passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.6.3 Results and Discussion.

4.4.1.6.3.1. Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.6.3.2 Significant Problems.

a. AWOS related problems

1. During OT&E #1, analysis of the live AWOS test data revealed that the One-Minute Observation (OMO) messages did not have the Thunderstorm Begin and Thunderstorm End Alert Data bits set under certain conditions. AUA-430 researched this problem and found that there was no requirement for the AWOS to set these bits, even though the bits are available in the OMO messages. ACT-320 recommended that a note be placed in the ICD for AWOS to set these bits. AUA-430 elected to leave the ICD as is. Since there was no requirement for AWOS to set these bits, this PTR was closed. This problem was classified as Moderate. (Refer to PTR OTE-036).

b. ASOS-related problems

1. Live testing with the ASOS revealed that "THROUGH" was used in place of "-" in the LTG DSNT ..." remarks. The ASOS software was modified and testing verified that the problem was corrected. As a result, this problem was closed. This problem was classified as Minor. (Refer to PTR OTE-035).

2. During OT&E #2, analysis of the data for test AL-02B (file al-02b-2.cap) revealed that the ASOS, KSP1, had the following problems:

(a) multiple Thunderstorm Begin (TSB)xx remarks without any Exx imbedded in the message.

(b) cases where the minutes crossed over from 1 hour to the next and the TSB remark did not indicate the previous hour; i.e., TSBhhxx.

(c) some of the TSBxx minutes changed from one SPECI to the next SPECI; e.g., in one SPECI TSB12 would be indicated and in the next TSB17 would appear.

These problems were classified as Major and remain open. (Refer to PTR OTE-054.)

4.4.1.6.3.3 PTRS GENERATED.

See appendix B for the complete PTR details. The PTRs generated with respect to this test are:

Major:	OTE-054 - Open
Moderate:	OTE-056 - Closed
Minor:	OTE-035 - Closed
	OTE-036 - Closed

4.4.1.7 Test AL-02C.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet this objective, this test verified that:

a. ADAS could process, store, and maintain a database to keep track of AWOSs, ASOSs, and ITWSs that were enabled to receive NLDN lightning data.

b. ADAS properly determined the proximity of lightning strikes and generated a message for each AWOS/ASOS when the lightning strikes were within the defined geographical areas surrounding the AWOS/ASOS.

c. ADAS maintained the status of lightning activity movement and identified the cessation of lightning activity for each AWOS/ASOS.

d. ADAS maintained a count of lightning strikes for the last 15 minutes for each of the 10 zones/sectors about the AWOS/ASOS ARP. [NOTE: ADAS maintained these counts internally and, therefore, it could only be determined through code inspections. Code inspections were performed at DT&E and were not performed during OT&E. However, ADAS LAD messages do maintain a 15-minute persistence for lightning activity for each zone/sector. This capability was verified during OT&E.]

e. AWOS/ASOS received the once per minute LAD data sent by ADAS and identified thunderstorms in the surface observations by reporting it when the lightning was presently active.

f. AWOS/ASOS correctly reported the lightning activity, as defined in the ADAS LAD message, "at the airport" when the lightning was within 5 nmi and within 5 nmi of the ARP.

g. AWOS/ASOS correctly reported the lightning activity, as defined in the ADAS LAD message, "in vicinity of the airport" when the lightning was from 5 nmi to 10 nmi of the ARP.

h. AWOS/ASOS correctly reported the appropriate sector directional designator for the lightning activity, as defined in the ADAS LAD message, when lightning was between 10 and 30 nmi of the ARP.

4.4.1.7.1 Description.

This scenario involved one live AWOS, one live ASOS, and one simulated AWOS. The two live stations replicated the simulated station with the same latitude and longitudes. (Note: The ADAS does not allow them to be exactly the same, therefore, the latitudes were off by .05 minutes.) As a result, the log files for the simulated station were used to verify the data sent to the live stations. The live AWOS and ASOS were necessary to verify that the AWOS and ASOS properly encoded LAD messages sent by ADAS. The IPS sent the same flash messages for all sites. The flash messages entailed single strikes in zones and sectors, in a zone by zone, sector by sector process, to ensure that ADAS generated the appropriate LAD messages. This enabled the determination that the live AWOS and ASOS properly reported the correct message.

This scenario was designed in order that the IPS sent a flash record every 16 minutes that fell into one of the 10 possible AWOS zones/sectors. These flash messages were generated every 16 minutes to allow for the 15-minute persistence to clear out the LAD messages. As a result, for a given 15-minute period only one zone/sector was active.

The IPS was scripted using the Standard and Specified Flash Message. Flash messages contained one flash for one of the 10 zones/sectors.

4.4.1.7.2 Data Reduction and Analysis Method.

NOTE: Actual analysis may find that some messages do not occur at the minutes indicated below. This is the result of the delay of the IPS sending out LDD messages as the script progresses through its life cycle. The following is a description as to why this occurs.

At the beginning of the script, the LDD flash messages are sent to ADAS at the beginning of the minute or mission cycle. As the script progresses, the LDD flash messages experience a delay in being sent to ADAS and, therefore, are sent to ADAS later and later into the minute/mission cycle. As a result, when the script first starts, the LDD messages sent at the top of the minutes get processed by ADAS during that minute's mission cycle. But at some point during the life of the script, the LDD message will be sent to ADAS too late into the mission cycle and as a result will not get processed during that minute's mission cycle. When this occurs the LDD message will not get processed until the next minute's mission cycle and, therefore, it appears as if ADAS "skipped" processing LDD messages for 1 minute.

LAD messages:

The LAD messages were logged on the IPS as part of the AWOS incoming message log. Analysis of the LAD messages sent indicated that a flash occurred as follows:

minutes 1 - 15, zone 1
minutes 17 - 31, zone 2
minutes 33 - 47, sector 1
minutes 49 - 63, sector 2
minutes 65 - 79, sector 3
minutes 81 - 95, sector 4
minutes 97 - 111, sector 5
minutes 113 - 127, sector 6
minutes 129 - 143, sector 7
minutes 145 - 159, sector 8

During minutes 16, 32, 48, 64, 80, 96, 112, 128, 144, and 160, the LAD indicated that no flashes occurred in each zone/sector.

For the live AWOS/ASOS:

Determination that the live AWOS and ASOS correctly incorporated the LAD messages was done through inspection of the 1-minute AWOS format messages that ADAS received from the AWOS and ASOS. This information was found in the DLP file which contained the AWOS

format 1-minute messages. Also, the METAR/SPECI messages that ASOS sent and ADAS generated (for AWOS) were inspected using the WMSCR file. Below is a description of what was included in the AWOS/ASOS 1-minute messages.

The DLP file was logged on the IPS. Analysis of the DLP file indicated that a flash occurred as follows:

minutes 2 - 16, indicated lightning at the airport
minutes 18 - 32, indicated lightning in vicinity of airport
minutes 34 - 48, indicated lightning in the N sector
minutes 50 - 64, indicated lightning in the NE sector
minutes 66 - 80, indicated lightning in the E sector
minutes 82 - 96, indicated lightning in the SE sector
minutes 98 - 112, indicated lightning in the S sector
minutes 114 - 128, indicated lightning in the SW sector
minutes 130 - 144, indicated lightning in the W sector
minutes 146 - 160, indicated lightning in the NW sector

During minutes 17, 33, 49, 65, 81, 97, 113, 129, 145, and 161, the DLP indicated that no flashes occurred in each zone/sector.

The WMSCR file was logged on the IPS. Analysis of the WMSCR file indicated that a SPECI was generated for the following times with flashes as follows:

minutes 2, indicated lightning at the airport
minutes 18, indicated lightning in vicinity of airport
minutes 34, indicated lightning in the N sector
minutes 50, indicated lightning in the NE sector
minutes 66, indicated lightning in the E sector
minutes 82, indicated lightning in the SE sector
minutes 98, indicated lightning in the S sector
minutes 114, indicated lightning in the SW sector
minutes 130, indicated lightning in the W sector
minutes 146, indicated lightning in the NW sector

For this test, 34 out of 36 Evaluation Criteria fully passed and 2 out of 36 Evaluation Criteria partially passed . The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.7.3 Results and Discussion.

4.4.1.7.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.7.3.2 Significant Problems.

a. ASOS-related problems

1. During live testing with the ASOS, it was discovered that the ASOS incorporated 15 minutes of persistence in addition to that of the ADAS 15-minute persistence on each lightning strike. This problem was corrected, retested, and verified to be resolved (see OT&E #1 data file al-02c-4.cap). (Refer to PTR OTE-028.)

2. During the retest of problem A.1., above, it was discovered that ASOS sent "LTG DATA MISG" remarks whenever the ASOS did not receive the ADAS LAD message in time for the ASOS OMO processing cycle. Retesting has been performed a number of times and still exists. This problem was classified as Major. (Refer to PTR OTE-037.)

b. Other Problems

1. The ASOS and AWOS systems handled differently the TSB/TSE for lightning strikes for zone 3. ASOS did not generate TSB/TSE remarks for zone 3 and AWOS did. The proposed resolution of this problem will be for AUA to update the ICD in order that AWOS does not issue TSB/TSE for zone 3 strikes. The contractor, DME, will be instructed to make this software change for the Y2K software build. This problem is classified as Moderate. (Refer to PTR OTE-029.)

c. ADAS-related problems

1. Automated Lightning Remarks. ADAS did not include LTG AT AIRPORT and LTG VCNTY remarks into the LAD message. As a result, these remarks are not incorporated into the AWOS and ASOS OMO, SPECI, and/or METAR messages. The ADAS Specification indicates that these should not be in the LAD, but the ADAS/AWOS ICD indicates that these remarks should be in the LAD. The proposed resolution is that AUA will update the ICD to explicitly state that LTG AT AIRPORT and LTG VCNTY not be included in the remarks. This change has not been made yet and, therefore, this PTR remains open. This problem is classified as Moderate. (Refer to PTR OTE-009.)

2. Thunderstorm Begin/End errors with Metars Messages.

(a) During OT&E #1, it was discovered that octets 57/58 were not used properly by ADAS as the source data for TSB/TSE remarks in METAR messages. Also, ADAS did not incorporate TSE remarks when the associated TSB was generated in the hour prior to the TSE. These two problems were related and classified as Major. (Refer to PTRs OTE-010 and OTE-032.) Both of these problems were verified as corrected during OT&E #2 and the PTRs were closed. However, during the retesting of these

problems, a new problem was discovered. This new PTR was documented in PTR OTE-052 (see 2.c below).

(b) During OT&E #1, it was discovered that the time stamp used for the ADAS-generated SPECIs differed from the time stamp of the TSB/TSE contained in the message. This problem was classified as Critical since the credibility of the information would be questioned by the users. During OT&E #2, this problem was verified as corrected and the PTR was closed. (Refer to PTR OTE-012.)

(c) During the retesting of PTRs OTE-010 and OTE-032, it was discovered (in the al-02c-1 data) that every OTIS SPECI within a given hour that contained more than one TSBxx and ended the Thunderstorm portion of the present weather begin/end remark field with a Bxx, did not contain the first TSExx that occurred during that hour. This problems was classified as Moderate and remained open. (Refer to PTR OTE-052.)

4.4.1.7.3.3 PTRs Generated.

See appendix B for the complete PTR details. The PTRs generated with respect to this test are:

Critical: OTE-028 - Closed

Major: OTE-010 - Closed
OTE-032 - Closed
OTE-037 - Open

Moderate: OTE-009 - Open
OTE-021 - Closed
OTE-029 - Open
OTE-052 - Open

4.4.1.8 Test AL-03.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet this objective, this test verified that:

a. ADAS could process, store, and maintain a database to keep track of AWOSs, ASOSs, and ITWSs that were enabled to receive NLDN lightning data.

b. ADAS properly determined the proximity of lightning strikes and generated a message for each AWOS/ASOS when the lightning strikes were within the defined geographical areas surrounding the AWOS/ASOS.

c. ADAS maintained status of lightning activity movement.

d. ADAS maintained a count of lightning strikes for the last 15 minutes for each of the 10 zones/sectors about the AWOS/ASOS ARP [NOTE: ADAS maintained these counts internally and, therefore, it could only be determined through code inspections. Code inspections were performed at DT&E and were not performed during OT&E. However, ADAS LAD messages did maintain a 15-minute persistence for lightning activity for each zone/sector. This capability was verified during OT&E.]

4.4.1.8.1 Description.

This scenario involved four simulated AWOSs. The four AWOSs were placed in a rectangular pattern and all four were fully inside the ADAS boundaries. AWOSs 1, 2, and 3 were all to be LAD message enabled, but AWOS 4 was not.

During initialization, the IPS was set up to send out Null flashes. This continued until the ADAS and IPS established communications and the test operator initiated the start of the al-03 lightning script. Then, at minute 1, flash messages were sent which contained lightning strikes just outside the 30 nmi limit for AWOS 1 and 2. For minutes 2 through 6, the lightning strikes proceeded northward, with a single lightning strike falling in the adjacent zone to the north for AWOS 1 and 2. At minute 7, a lightning strike fell half way between AWOSs 2 and 3 and half way between AWOSs 1 and 4. For minutes 8 through 12, the lightning strikes continued to proceed northward, with a single lightning strike falling in the adjacent zone to the north for AWOS 3 and 4. Since AWOS 4 was LAD message disabled, no LAD messages were sent to this AWOS. At minute 13, a lightning strike fell just to the north of the 30 nmi boundary for AWOS 3 and 4. Also, during minutes 1 through 13 for each minute, 62 lightning strikes fell outside the 30 nmi boundaries of the AWOSs but within the ARTCC boundary. Additionally, for each minute, 62 lightning strikes fell outside of the ARTCC boundary, but within the continental United States (CONUS).

A final minute of Null flashes was sent so that the test did not terminate before the 13th-minute's lightning was processed.

4.4.1.8.2 Data Reduction and Analysis Method.

NOTE: Actual analysis may find that some messages do not occur at the minutes indicated below. This is the result of the delay of the IPS sending out LDD messages as the script progresses through its life cycle. The following is a description as to why this occurs.

At the beginning of the script, the LDD flash messages are sent to ADAS at the beginning of the minute or mission cycle. As the script progresses, the LDD flash messages experience a delay in being sent to ADAS and, therefore, are sent to ADAS later and later into the minute/mission cycle. As a result, when the

script first starts, the LDD messages sent at the top of the minutes get processed by ADAS during that minute's mission cycle. But at some point during the life of the script, the LDD message will be sent to ADAS too late into the mission cycle and as a result will not get processed during that minute's mission cycle. When this occurs the LDD message will not get processed until the next minute's mission cycle and, therefore, it appears as if ADAS "skipped" processing LDD messages for 1 minute.

AWOS LAD messages:

The LAD messages were logged on the IPS as part of the AWOS incoming message log. The following was the analysis of the LAD messages sent:

At minute 2, the LAD message indicated no flashes for any of the AWOSs.
At minute 3, the LAD message indicated a flash for sector 5 for AWOS 1 and 2.
At minute 4, the LAD message indicated a flash for zone 2 and sector 5 for AWOS 1 and 2.
At minute 5, the LAD message indicated a flash for zone 1, zone 2, and sector 5 for AWOS 1 and 2.
At minute 6, the LAD message indicated a flash for zone 1, zone 2, and sector 5 for AWOS 1 and 2.
At minute 7, the LAD message indicated a flash for zone 1, zone 2, and sectors 1 and 5 for AWOS 1 and 2.
At minute 8, the LAD message indicated a flash for zone 1, zone 2, and sectors 1 and 5 for AWOS 1 and 2.
At minute 9, the LAD message indicated a flash for zone 1, zone 2, and sectors 1 and 5 for AWOS 1 and 2 and for sector 5 for AWOS 3.
At minute 10, the LAD message indicated a flash for zone 1, zone 2, and sectors 1 and 5 for AWOS 1 and 2 and for zone 2 and sector 5 for AWOS 3.
At minute 11, the LAD message indicated a flash for zone 1, zone 2, and sectors 1 and 5 for AWOS 1 and 2 and for zone 1, zone 2, and sector 5 for AWOS 3.
At minute 12, the LAD message indicated a flash for zone 1, zone 2, and sectors 1 and 5 for AWOS 1 and 2 and for zone 1, zone 2, and sector 5 for AWOS 3.
At minute 13, the LAD message indicated a flash for zone 1, zone 2, and sectors 1 and 5 for AWOS 1, 2, and 3.
At minute 14, the LAD message indicated a flash for zone 1, zone 2, and sectors 1 and 5 for AWOS 1, 2, and 3.

Since AWOS 4 was LAD message disabled, no flash messages were sent to this AWOS.

ITWS LDD messages:

The LDD messages were logged on the IPS for each ITWS as part of their incoming message log. Analysis of the ITWS's LDD messages

for each minute indicated that only those lightning strikes that passed rough geographical screening (i.e., the 62 strikes that fell within the ADAS boundaries and the flashes that fell within 30 nmi of the 3 AWOSs) were passed along.

For this test, 12 out of 12 Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.8.3 Results and Discussion.

4.4.1.8.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.8.3.2 Significant Problems.

None

4.4.1.8.3.3 PTRs Generated.

See appendix B for the complete PTR details. The PTR generated with respect to this test was:

Moderate: OTE-002 - Closed

4.4.1.9 Test AL-04.

The objective of this test is to verify that the ADAS properly processes LDD data containing lightning flashes that fall in an area of geographic overlap for three AWOSs and to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet this objective, this test will verify that:

a. ADAS can process NLDN data.

ADAS can properly determine the proximity of lightning strikes and generate a message for each AWOS/ASOS when the lightning strikes are within the defined geographical areas surrounding the AWOS/ASOS.

4.4.1.9.1 Description.

An IPS-driven test was configured to include three AWOSs located such as to ensure that the AWOSs overlapped. The AWOSs were located such that they all had the same longitude. The one AWOS (simulator #5) was located exactly 40 nmi from the other two AWOSs (simulators #1 and #2). Hence, the west sector of east most AWOS simulator (#1) overlapped the east sector of the middle AWOS simulator (#5) by 10 nmi. The east sector of the west most

AWOS simulator (#2) overlapped the west sector of the middle AWOS simulator by 10 nmi. The NLDN simulator sent LDD data with two flash records for 1 minute to ADAS. One of these lightning strikes "fell" in the overlapping east sector of simulator #2 and west sector of simulator #5. The other lightning strike "fell" in the overlapping west sector of simulator #1 and the east sector of simulator #5. A second minute of Null flashes was sent so that the test did not terminate before the first-minute's lightning was processed.

4.4.1.9.2 Data Reduction and Analysis Method.

The NLDN LDD file was analyzed to determine that the lightning data was sent at the test commencement minute recorded in the test procedures.

The LAD messages were logged on the IPS as part of the AWOS incoming message log. Analysis of the LAD messages sent for the first minute (corresponding to the time recorded in the test procedure steps and the NLDN LDD file) indicated that a flash occurred in the W sector for AWOS simulator #1, in the E sector for AWOS simulator #2, and the E and W sector for AWOS simulator #5.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.9.3 Results and Discussion.

4.4.1.9.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.9.3.2 Significant Problems.

None.

4.4.1.9.3.3 PTRs Generated.

None.

4.4.1.10 Test AL-05.

The objective of this test was to ensure that the geographical screening by ADAS did not eliminate a lightning strike that was within 30 nmi of an AWOS/ASOS, even though the strike fell outside of the ARTCC geographical screening area.

Further objectives of this test were to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet these objectives, this test verified that:

a. ADAS properly determined the proximity of lightning strikes and generated a message for each AWOS/ASOS when the lightning strikes were within the defined geographical areas surrounding the AWOS/ASOS.

4.4.1.10.1 Description.

This scenario involved one simulated AWOS. The AWOS was configured using the ADAS Specialist Console with the east half of its 30 nmi area of coverage located outside the ARTCC geographical screening area. (Note: During OT&E #1, ADAS did not support the capability to use the ADAS Specialist Console to configure the AWOS as described. Therefore, it was configured as described in the configuration file. PTR OTE-007 was written during the conduct of test AL-09 to document this problem.) The IPS was scripted to send 5 minutes of flash records that fell in that part of the AWOS's 30 nmi area of coverage that was within the ARTCC geographical screening area. The IPS was scripted, then, to send 5 minutes of flash records that fell in that part of the AWOS's 30 nmi area of coverage that was outside the ARTCC geographical screening area. The IPS was scripted using the Standard and Specified Flash message.

4.4.1.10.2 Data Reduction and Analysis Method.

NOTE: Actual analysis may find that some messages do not occur at the minutes indicated below. This is the result of the delay of the IPS sending out LDD messages as the script progresses through its life cycle. The following is a description as to why this occurs.

At the beginning of the script, the LDD flash messages are sent to ADAS at the beginning of the minute or mission cycle. As the script progresses, the LDD flash messages experience a delay in being sent to ADAS and, therefore, are sent to ADAS later and later into the minute/mission cycle. As a result, when the script first starts, the LDD messages sent at the top of the minutes get processed by ADAS during that minute's mission cycle. But at some point during the life of the script, the LDD message will be sent to ADAS too late into the mission cycle and as a result will not get processed during that minute's mission cycle. When this occurs the LDD message will not get processed until the next minute's mission cycle and, therefore, it appears as if ADAS "skipped" processing LDD messages for 1 minute.

The LAD messages were logged on the IPS as part of the AWOS incoming message log. Analysis of the LAD messages from minute 2 through 6 indicated that a flash occurred in zones 1 and 2 and in the zone 3 west sector. Analysis of the LAD from minute 7

through 11, indicated a flash occurred in zones 1 and 2 and in the zone 3 east and west sector.

The ITWS messages were logged on the IPS as part of the ITWS incoming message log. Analysis of the ITWS1 LDD message from minute 1 through 5 indicated that three flash records were sent to the ITWS. Analysis of the ITWS1 LDD for minutes 6 through 11 indicated that no flash records were sent to the ITWS (i.e., only date/time stamps were present).

For this test, two out of four Evaluation Criteria passed and two out of four Evaluation Criteria failed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.10.3 Results and Discussion.

4.4.1.10.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.10.3.2 Significant Problems.

ADAS did not report lightning strikes to an AWOS when the lightning strikes fell in a part of an AWOS that was outside of an ARTCC boundary. This problem could easily occur in the field as a result of an erroneous entry at the ADAS Specialist Console. Further, this would result in lightning strikes not being reported to an AWOS. Therefore, this problem was classified as Major. The contractor, DME Inc., is still determining how to resolve this problem. The resolution to this problem is to be implemented in the Y2K software build. (Refer to PTR OTE-038).

4.4.1.10.3.3 PTRs Generated.

See appendix B for the complete PTR details. The PTR generated with respect to this test was:

Major: OTE-038 - Open

4.4.1.11 Test AL-06.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet these objective, this test verified that ALDARS could:

a. Properly accept and interpret data from the NLDN data source at the specified data rate of 1200 baud, while this data

was continuously arriving at the maximum input rate of 1100 lightning strikes per minute.

b. At the maximum input rate specified in (a), detect all error conditions in the LDD input stream: TYPE_INVALID (packet is a non-LDD message), DLE_INVALID (DLE packet rule violation), SOP_INVALID (SOP detection prior to EOP violation), EOP_SOP_INVALID (start of packet violation), LENGTH_INVALID (exceeded packet size), CHECKSUM_INVALID (packet checksum violation).

c. At the maximum input rate specified in (a), properly maintain performance data points reflecting the status/condition of the NLDN interface. These values are: LU 2D (DP 1, value 00) indicating the NLDN Interface connection status is not configured, LU 2D (DP 1, value 01) indicating the NLDN Interface connection status is configured but failed, and LU 2D (DP 1, value 02) indicating the NLDN Interface connection status is configured and active.

d. At the maximum input rate specified in (a), capture and form all valid LDD input messages.

e. Properly generate LAD messages for AWOS.

f. Disseminate the LAD message to the correct AWOS within 1 minute.

(NOTE: The following was combined from Test AL-07)

g. Correctly disseminate LDD messages to each ITWS configured.

1. Transmit the LDD ADU containing flash messages to the ITWS every 5-seconds.

2. Not include in the ADU, and thus do not transmit to ITWS, any indication of any Flash Message(s) which are missing during a given second(s) of the 5-second interval.

h. Correctly disseminate LAD messages to each of a maximum of 50 ASOS and 25 AWOS stations configured for the ADAS.

1. For a maximum of 50 ASOS and 25 AWOS stations, transmit to each station for which lightning activity has existed during the past 15 minutes, a LAD message every 1 minute.

2. Transmit LAD messages to AWOS at a rate of 152 bits per minute while using existing communication lines.

i. Disseminate lightning data to WMSCR via METAR messages.

4.4.1.11.1 Description.

The IPS was scripted using the Specified Flash Message (SFM). The IPS generated 1100 flashes per minute with one flash falling in each of the 10 zones/sectors for 50 ASOSs and 25 AWOSs (1 AWOS must be live). (NOTE: Although the IPS was sending 1100 flashes and the ADAS was processing these 1100, only 750 of these flashes were associated with a LAD enabled AWOS/ASOS). The flash locations in each zone/sector were identical for each AWOS. (NOTE: Since in this test ADAS needed to detect the NLDN communications going from CFG ACTIVE to CFG NOT and vice versa, there needed to be a 1-second pause in the NLDN data every minute to minute and a half. This allowed the ADAS to detect the state change in the NLDN communications. Although this reduced slightly the 1100 strikes per minute maximum, this more than satisfied the stress conditions of the live operational mode.)

4.4.1.11.2 Data Reduction and Analysis Method.

The following was the expected output for Minutes 1 - 198.

Minute 1 - 37: For any METAR or SPECI, the live AWOS indicated lightning occurring at the airport in the present weather message and lightning occurred in the distance for all quadrants in the remarks section of the weather message. Also, in the remarks section there was an indication that the thunderstorm began.

Each LAD message indicated 10 flashes per AWOS per minute. The logged LADs revealed a total of 750 flashes per minute (Note 1: although we were receiving 1100 strikes, since we only enabled 75 AWOS/ASOS we only had 750 strikes in the LAD file. Note 2: Some of the stations were set up right along the ARTCC boundaries. As a result, some of their sectors were outside the ARTCC boundaries and, therefore, these sectors did not indicate lightning in the LADs. This problem was documented in test AL-05 in PTR OTE-038.) Each AWOS incoming message log had the following flash message structure per minute:

Zone	Sector	Comments
1	N/A	Flash occurred in center of zone at the ARP.
2	N/A	Flash occurred 7 nmi out from ARP at 180°.
3	1	Flash occurred 20 nmi out from ARP at 0°.

2	Flash occurred 20 nmi out from ARP at 45°.
3	Flash occurred 20 nmi out from ARP at 90°.
4	Flash occurred 20 nmi out from ARP at 135°.
5	Flash occurred 20 nmi out from ARP at 180°.
6	Flash occurred 20 nmi out from ARP at 225°.
7	Flash occurred 20 nmi out from ARP at 270°.
8	Flash occurred 20 nmi out from ARP at 315°.

Minute 39 - 55: Analysis of the ASC screen NLDN Datapoints indicated that the NLDN interface connection status was CFG NOT. The NLDN communications LU, 0x2d, Data point printout also indicated that the NLDN was not configured (Note: This failed. See PTR OTE-042 and OTE-043.)

Minute 57: Analysis of the ASC screen NLDN Datapoints indicated that the NLDN interface connection status was CFG ACTIVE.

Minute 60 - 73: Analysis of the ASC screen NLDN Datapoints indicated that the NLDN interface connection status was CFG FAILED. The NLDN communications LU, 0x2d, Data point printout indicated that the NLDN communications had failed. (Note: This failed. See PTR OTE-042 and OTE-043.)

The ITWS incoming message log indicated that no LDD has been transferred. No data were included in the ITWS file.

Minute 75 - 90: Analysis of the ASC screen NLDN Datapoints indicated that the NLDN interface connection status was CFG ACTIVE. At Minute 80, the NLDN communications LU, 0x2d, Data point printout indicated that the NLDN communications was active. (Note: This failed. See PTR OTE-042 and OTE-043.)

For every METAR or SPECI, the live AWOS indicated lightning occurring at the airport in the present weather message and lightning occurring in the distance for all quadrants in the remarks section of the weather message. Also, in the remarks section, there

was an indication that the thunderstorm began.

Each LAD message indicated 10 flashes per AWOS per minute. The logged LADs revealed a total of 750 flashes per minute. (Note 1: although we were receiving 1100 strikes, since we only enabled 75 AWOS/ASOS, we only had 750 strikes in the LAD file. Note 2: Some of the stations were set up right along the ARTCC boundaries. As a result, some of their sectors were outside the ARTCC boundaries and, therefore, these sectors did not indicate lightning in the LADs. This problem was documented in test AL-05 in PTR OTE-038.)
Each AWOS incoming message log had the following flash message structure per minute:

Zone	Sector	Comments
1	N/A	Flash occurred in center of zone at the ARP.
2	N/A	Flash occurred 7 nmi out from ARP at 180°.
3	1	Flash occurred 20 nmi out from ARP at 0°.
	2	Flash occurred 20 nmi out from ARP at 45°.
	3	Flash occurred 20 nmi out from ARP at 90°.
	4	Flash occurred 20 nmi out from ARP at 135°.
	5	Flash occurred 20 nmi out from ARP at 180°.
	6	Flash occurred 20 nmi out from ARP at 225°.
	7	Flash occurred 20 nmi out from ARP at 270°.
	8	Flash occurred 20 nmi out from ARP at 315°.

Minute 91 - 198: For every METAR or SPECI, the live AWOS indicated lightning occurring at the airport in the present weather message and lightning occurring in the distance for all quadrants in the remarks section of the weather message. Also, in the remarks section, there was an indication that the thunderstorm began.

Each LAD message indicated 10 flashes per AWOS per minute. The logged LADs revealed a total of 750 flashes per minute. (Note 1: although we were receiving 1100 strikes, since we only enabled 75 AWOS/ASOS, we only had 750 strikes in the LAD file. Note 2: Some of the stations were set up right along the ARTCC boundaries. As a result, some of their sectors were outside the ARTCC boundaries and, therefore, these sectors did not indicate lightning in the LADs. This problem was documented in test AL-05 in PTR OTE-038.) Each AWOS incoming message log had the following flash message structure per minute:

Zone	Sector	Comments
1	N/A	Flash occurred in center of zone at the ARP.
2	N/A	Flash occurred 7 nmi out from ARP at 180°.
3	1	Flash occurred 20 nmi out from ARP at 0°.
	2	Flash occurred 20 nmi out from ARP at 45°.
	3	Flash occurred 20 nmi out from ARP at 90°.
	4	Flash occurred 20 nmi out from ARP at 135°.
	5	Flash occurred 20 nmi out from ARP at 180°.
	6	Flash occurred 20 nmi out from ARP at 225°.
	7	Flash occurred 20 nmi out from ARP at 270°.
	8	Flash occurred 20 nmi out from ARP at 315°.

Additionally, during minutes 91 - 198, the following LDD stream errors were recorded in the ADAS event error log:

Minutes 91-108: Event 21, TYPE_INVALID (packet is a non-LDD message).

Minutes 109-126: Event 21, DLE_INVALID (DLE packet rule violation).

Minutes 127-144: Event 21, SOP_INVALID (SOP detection prior to EOP violation).

Minutes 145-162: Event 21, CHECKSUM_INVALID (packet checksum violation).

Minutes 163-180: Event 21, LENGTH_INVALID (exceeded packet size).

Minutes 181-198: Event 21, EOP_SOP_INVALID (start of packet violation).

The ITWS Input Message Logs indicated approximately 1100 flash records were reported per minute for a total of 187,000 messages received from ADAS (1100 messages per minute for 198 minutes, excluding minutes 1-6, 38-48, and 49-59).

The WMSCR Input Message Log should indicate that hourly METARs were recorded for each simulated and live AWOS/ASOS. (NOTE: Since one of the IPS channels was out, six of the simulated AWOSs did not report a METAR).

For this test, 11 out of 13 Evaluation Criteria fully passed, 1 out of 13 Evaluation Criteria partially passed, and 1 out of 13 Evaluation Criteria were verified in the AL-01 tests. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.11.3 Results and Discussion.

4.4.1.11.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.11.3.2 Significant Problems.

a. Analysis of data for OT&E #1, AL-06 test revealed that the NLDN Communications DP printout indicated the NLDN Availability Status as "online-normal" and the Value as "config-active" for the conditions when the NLDN was set to "out of service" and when the NLDN to ADAS was disconnected. Further testing during DT&E #2 and OT&E #2 seemed to indicate that the NLDN Communications and ITWS Communications LU/DP printouts were not coded correctly. Therefore, this PTR remains open, but has been downgraded to a Moderate classification. (Refer to PTR OTE-042.)

b. Analysis of the IPS MPS file for OT&E #1, test AL-06 revealed that the NLDN Interface Connection Status DP did not reflect the current condition of the NLDN Interface. At 10:59 of this test, the NLDN was placed in an "out of service" condition. At 11:01, the NLDN Interface Connection Status DP indicated a Condition Status of "configured active". Then at 11:18, the cable from the NLDN to ADAS was disconnected. It was not until 11:31 that the NLDN Interface Connection Status DP indicated a Condition Status of "configured failed". At 11:35, the NLDN

cable was reconnected to ADAS; however, it was not until 12:16 that the NLDN Interface Connection Status DP indicated a Condition Status of "configured active".

Further testing indicated that ADAS fails to set the DP correctly when ADAS is under the maximum load conditions. Since ADAS was using up the whole mission cycle to process lightning strikes, it did not always properly set the DP indicating NLDN was down. DME implemented a fix for this problem in build 4.19. The problem was retested during DT&E #2 and OT&E #2 and was verified as corrected. Therefore, this PTR has been closed. (Refer to PTR OTE-043.)

4.4.1.11.3.3 <u>PTRs Generated</u>.

See appendix B for the complete PTR details. The PTRs generated with respect to this test are:

Critical: OTE-041 - Closed

Major: OTE-043 - Closed

Moderate: OTE-042 - Open

4.4.1.12 <u>Test AL-07</u>.

This test was combined with Test AL-06.

4.4.1.13 <u>Test AL-08</u>.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

To meet these objectives this test performed the following:

a. verified that ADAS detected a physical interrupt or disconnect condition of the NLDN link,

b. verified that ADAS, in an operational environment, detected satellite disconnects from the NLDN,

c. verified that ADAS, in an operational environment, detected errors in the LDD message from the NLDN,

d. verified that AWOS/ASOS reported correctly when ADAS data was unavailable.

4.4.1.13.1 <u>Description</u>.

This test evaluated the handling of the physical NLDN link disconnection by ADAS. It also evaluated the handling of a satellite interrupt in the operational NLDN satellite link by ADAS. Additionally, this test evaluated the ability of ADAS to

detect errors in operational LDD messages from the NLDN. Also, since live NLDN data was used, the latitude and longitude data (in the configuration files) for live AWOSs and ASOSs was moved to where the lightning was occurring.

4.4.1.13.2 Data Reduction and Analysis Method.

The following analysis method was utilized on the output data for this test.

a. Upon disconnection of the NLDN cable to the ADAS, the ITWS file contained no LDD Flash Record data for the time associated with the disconnect. During this same time period, the DLP file indicated that the live AWOS began to report LTG DATA MISG 15 minutes after the disconnect. Also, the METAR/SPECI reports contained an LTG DATA MISG in the remarks field. Finally, the ADAS event log indicated that Event 62 (comm status: enabled-failed) had occurred.

b. Upon reconnection of the NLDN cable to the ADAS, the ITWS file contained LDD Flash Record data for the time associated with the reconnect. During this same time period, the DLP file indicated that the live AWOS stopped reporting LTG DATA MISG. Also, the METAR/SPECI reports did not contain an LTG DATA MISG in the remarks field. Finally, the ADAS event log indicated that Event 62 (comm status: enabled-active) had occurred.

c. Upon repositioning of the NLDN satellite dish (in order to generate LDD message errors), ADAS identified the LDD message errors. The ADAS event log indicated that numerous Event 21 type messages occurred during the time associated with the repositioning of the satellite dish. The error type was "NLDN error message" and the error code was always one of the following: "Invalid message type", "Invalid checksum", "Invalid SOP-EOP sequence", or "Invalid SOP sequence". An exact correlation could not be made between the errors recorded on the NLDN Thunder Box Satellite Diagnostics display (see the test procedure steps); however, a qualitative assessment could be made to determine if the ADAS event log reflected the errors reported on the Thunder Box display.

d. Upon disconnecting ADAS from the AWOS, the AWOS reported that ADAS data was unavailable. This was verified by the DLP file where there were no reports from the AWOS during the time of disconnect.

e. Upon reconnecting ADAS to the AWOS, the AWOS reported that ADAS data was available. This was verified by the DLP file where there were reports from the AWOS after the time of disconnect.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.13.3 Results and Discussion.

4.4.1.13.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.13.3.2 Significant Problems.

a. Analysis of data for test AL-08 (OT&E #1 file al-08-1.cap) revealed that the LTG DATA MISG remark was not incorporated into the METAR message. At 13:31, the cable to the NLDN controller was disconnected. At 13:44, the AWOS (OTIS) OMO included a LTG DATA MISG remark in Field 22 and Field 21 (Octet 68), bit 3 was also set. OTIS continued to send this remark in each OMO up to and including the 14:04 OMO. However, the METAR at 14:00 did not include the LTG DATA MISG remark.

The problem was that a space had been added to the OTIS OMO automated lightning remarks. Therefore, when the ADAS code checked octet 69 and found the blank space, it assumed no auto remarks. To fix this problem, the ADAS software was modified to search beyond the blank space for any remarks.

This problem was verified as corrected during DT&E #2 and OT&E #2. Data from OTE #2 al-06-1.cap verified that the OTIS OMO LTG DATA MISG automated remarks were in the METARs, therefore, this PTR was closed. (Refer to PTR OTE-031.)

b. At 13:31 during test AL-08 the cable to the NLDN controller was disconnected. It was not until 13:44 that the OTIS OMO indicated that lightning was unavailable. This was a result of ADAS not setting the LAD availability bit (i.e., NLDN is not available) until 15-minutes after the NLDN was disconnected. This is in violation of the ICD par 30.3.2.2 which states that the availability bit "shall indicate the current availability of lightning information to AWOS". DME interpreted "current availability" as including the 15-minute persistence of lightning strikes. However, at the Program Management Review in November 1997, AUA-430 determined that whenever the ADAS stops receiving lightning data from the NLDN, the LAD availability bit should be set to indicate that lightning is unavailable. Therefore, if a lightning remark or TSB is still within a 15-minute persistence window and the ADAS stops receiving lightning for 2 consecutive minutes, then the LAD availability bit should be set to 1, Thunderstorm No.(TSNO) should be issued and all lightning remarks and TSBs should be removed. It was decided that AUA would clarify the resolution to this problem and

provide DME with direction on how to resolve for the Y2K build. Even though this is a Major PTR, it was deferred until the Y2K build. (Refer to PTR OTE-033.

c. PTR OTE-034 was also discovered during this test. At the time, it was thought to be a separate problem from PTR OTE-033. However, it has been determined that both PTRs are related and require the same solution. This PTR was classified as Major and remains open. (Refer to PTR OTE-034.)

d. Analysis of the test AL-08 event log revealed that during times, when no communications problems existed for the ADAS/NLDN interface, an EVENT 21 was generated. These EVENT 21 messages were always generated around :45 seconds past the minute. The following is an example of this.

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 09-12-97
13:26:45
EVENT SEQ. NUMBER: 289   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: NLDN error message   error code: Invalid message
type
original csc id: 22.01   error number: 12
error offset: 353

At the Program Management Review in November 1997, DME explained that EVENT 21 messages are generated every minute because every minute the NLDN system sends a messages that is erroneous (based on the ADAS Spec requirements). As a result, ADAS generates this message. It was determined at the PMR that DME would generate a Program Change Report about this problem and AUA-430 would direct them to fix it by removing EVENT 21 messages corresponding to these NLDN messages that are sent every minute. DME would incorporate the necessary changes for the Y2K build. This PTR was classified as Moderate and remains open. (Refer to PTR OTE-044.)

4.4.1.13.3.3 PTRs Generated.

See appendix B for the complete PTR details. The PTRs generated with respect to this test are:

Major: OTE-031 - Closed
OTE-033 - Open
OTE-034 - Open

Moderate: OTE-044 - Open

4.4.1.14 Test AL-09.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet this objective, this test determined that:

a. ADAS could process, store, and maintain a database to keep track of AWOSs, ASOSs, and ITWSs that were enabled to receive NLDN lightning data.

b. ADAS could properly determine the proximity of lightning strikes and generate a message for each AWOS/ASOS when the lightning strikes were within the defined geographical areas surrounding the AWOS/ASOS.

c. ADAS maintained the status of lightning activity movement and identified the cessation of lightning activity for each AWOS/ASOS.

d. ADAS maintained a count of lightning strikes for the last 15 minutes for each of the 10 zones/sectors about the AWOS/ASOS ARP. [NOTE: ADAS maintained these counts internally and, therefore, it could only be determined through code inspections. Code inspections were performed at DT&E and were not performed during OT&E. However, ADAS LAD messages do maintain a 15-minute persistence for lightning activity for each zone/sector. This capability was verified during OT&E.]

e. ADAS used the existing communications lines to transport the LAD messages to the AWOSs/ASOSs.

f. AWOS/ASOS received the once per minute LAD data sent by ADAS and identified thunderstorms in the surface observations by reporting it when the lightning was presently active.

4.4.1.14.1 Description.

This scenario involved the live NLDN interface and a minimum of one live AWOS, or one live ASOS, and one simulated AWOS/ASOS that replicated the live station. (Note: the ADAS does not allow the simulated and live sites to be exactly the same location, therefore, the latitudes were set apart by .05 minutes.) This test was run at more than once for the AWOS and the ASOS. The simulated station replicated whichever type station was live.

The key to this test was to track a current thunderstorm using the NLDN display in the ADAS PSF and then to "trick" the ADAS into processing the lightning detection data as if the AWOS or ASOS were located in the area where the thunderstorm was occurring.

This test required some quick work on the ASC to "move" the AWOS or ASOS to the location where the thunderstorm(s) were occurring. This required the use of the NLDN display system in order to anticipate and predict where thunderstorm activity would provide sufficient lightning activity sufficient to verify the ALDARS requirements. By analyzing the NLDN display (and other meteorological resources available at the FAA Technical Center), a particular location(s) was identified to have a high probability for occurrence of heavy lightning activity. The test operator used the ASC to "move" the ADAS in order that the boundaries of the ARTCC (ADAS) included this lightning activity area (LAA). The latitude and longitude of the ARTCC boundaries were set up in order that the ASOS or AWOS could be placed 50 nmi from the boundaries of the ADAS and the station was still "in the path" of the LAA. To allow for the 30 nmi area of the ASOS or AWOS plus 20 nmi, 50 nmi was necessary. The test operator also used the ASC to "move" the AWOS or ASOS to a latitude and longitude within the ARTCC (ADAS) boundaries and "in the path" of the LAA.

Once the lightning strikes moved to within 10 nmi of the ARTCC (ADAS) boundaries, the logging of LAD and LDD messages commenced by beginning test AL-09 on the IPS.

The scenario continued until the thunderstorm "moved away" from the AWOS or ASOS. It was determined that the lightning had moved more than 30 nmi from the AWOS/ASOS by using the "range-circles" capability of the NLDN system.

On the NLDN system, the lightning strike buffer was saved to disk for comparison, during data analysis, to the captured LAD messages.

The IPS DLP AWOS file was saved. This file contained the 1-minute AWOS format messages sent by the AWOS/ASOS. These messages were inspected to determine if the LAD messages were properly received and incorporated by the AWOS/ASOS.

The ADAS processed and archived the ADAS generated (i.e., AWOS only) METAR and SPECI messages and the IPS logged the METAR and SPECI messages generated by both the ADAS and ASOS. These messages were in the IPS WMSCR METAR file and used during DR&A to determine if the METAR/SPECI messages were correct.

The IPS LAD message file contained the LAD messages generated for the simulated AWOS/ASOS that replicated the live site.

4.4.1.14.2 Data Reduction and Analysis Method.

DR&A was performed by comparing archived lightning activity from the NLDN system to the LAD messages that were captured on the IPS. The archived NLDN data was recalled by selecting the appropriate file from those files stored on disk. By using the

ANIMATION screen this data was "stepped" through (minute by minute) and compared to the LAD messages that were sent to the AWOS or ASOS. For the AWOS/ASOS, the NLDN data and LADs were compared to the captured IPS DLP and WMSCR METAR message log.

For this test, 22 out of 23 Evaluation Criteria fully passed and 1 out of 23 Evaluation Criteria partially passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.14.3 Results and Discussion.

4.4.1.14.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.14.3.2 Significant Problems.

a. PTRs OTE-007 and OTE-030 were generated during OT&E #1. These PTRs were written because the ASC screens did not allow for changing the AWOS station latitude and longitude or the AWOS station LAD enable/disable setting. Both of these PTRs were verified as corrected during DT&E #2 and OT&E #2. During OT&E #2, these PTRs were verified as corrected by the performance of the AL-09 Test Conduct Form (TCF). Both PTRs were classified as Critical and have been closed. (Refer to PTRs OTE-007 and OTE-030.)

b. During test AL-09 (OT&E #1), on 8/27/97 from 14:41, the OTIS AWOS never reported any Automated Remarks for Lightning. OTIS did report TSB44, but never reported any lightning for any of the sectors, vicinity, or at airport. Further analysis determined that this problem (and OTE-031) were the result of a blank space in the AWOS automated lightning remark. As a result, DME modified the software to look at the whole automated remark field for lightning remarks. This modification was tested during DT&E #2 and OT&E #2. OT&E #2 file al-02c-1.cap contains the data verifying that this problem was corrected. This PTR was classified as Major and has been closed. (Refer to PTR OTE-008.)

c. During Test AL-09-1 (OT&E #1), a thunderstorm began and was reported as TSB44 (i.e., 1444); however, no TE was ever generated and eventually the TSB44 was dropped out of the reports. DME implemented a fix to correct this problem (PTR OTE-010). This problem was verified as corrected during DT&E #2 and OT&E #2. OT&E #2 file al-02c-1.cap contains the data verifying that this problem was corrected. However, as a result of the analysis to verify that this problem was corrected, another problem was found and documented in PTR OTE-052. PTR OTE-010 was classified as Major and has been closed. (Refer to PTR OTE-010).

d. During Test AL-09 (OT&E #1), it was noticed that the ADAS-generated METAR/SPECI messages that had conflicting time information for the Thunderstorm Begin/End Automated Remarks. The time stamp placed at the beginning of the METAR/SPECI was 2 minutes earlier than when the Automated Remark indicated that the Thunderstorm Began or Ended. Here is a sample of what was observed and recorded.

SPECI OTIS 281323Z ----------- TSB25

DME implemented a fix for this problem. This problem was verified as corrected during DT&E #2 and OT&E #2. OT&E #2 file al-02c-1.cap contains the data verifying that this problem was corrected. This problem was classified as Critical and has been closed. (Refer to PTR OTE-012).

e. Analysis of the results for OT&E #2 test data al-09-2.cap indicated that when the AWOS (OTIS) station was LAD disabled at 14:34 and remained disabled until 14:56, no TSExx was generated. At 1433Z, an OTIS SPECI was generated indicating "LTG DSNT NE AND SE TSB13". The next report for OTIS was the hourly METAR at 1500Z which contained no remarks about lightning. ACT-320 wrote PTR OTE-055 believing that there should have been an indication in the METAR that the lightning had ended. However, since the LAD disable was more than 15 minutes, ADAS handled the event properly and cleared the TS remarks. ACT retested on April 8, 1998, to determine what would occur if the LAD was disabled for less than 10 minutes. Based on the AL-09 test on April 8, 1998, ADAS cleared the event even though it was less than 10 minutes. This is consistent with the SPEC but inconsistent with the ADAS/AWOS ICD paragraph 90.3.2.12.1.5.3. Therefore, it was recommended that the ICD be clarified and updated to exclude the LAD Disabled LTG DATA MISG condition from the continuation criteria when less than 15 minutes. This PTR has been classified as Moderate and remains open. (Refer to PTR OTE-055.)

f. During OT&E #2 Test AL-09, ACT-320 discovered that the NLDN LDD Quality Factor Bit (QFB) appeared to have been flip-flopped (i.e., good flashes had a QFB set to bad and bad flashes had a QFB set to good). During the few days of running this live test, roughly, 95 percent of all flashes had the QFB set as bad. ACT-320 reported this to Global Atmospherics, Inc. (GAI). (The providers of the lightning data to the FAA).

GAI researched this apparent problem and discovered that the QFB had been flip-flopped. GAI software engineers reported that "somehow" the NLDN software had been modified and this error was incorporated. The GAI spokesman, William Brooks, did not have any details from the software engineers as to how this error occurred. Mr. Brooks reported that GAI had corrected the software and that the problem was resolved. ACT-320 has requested that the GAI software engineers provide a full

explanation as to how this problem occurred and what measures have been taken to ensure that it does not occur in the future. ACT-320 has not received a response from GAI at the time of this report's release. Since this problem is Major, ACT-320 recommended that the ADAS software be modified to monitor the QFB to ensure that this error is detected if it occurs in the future. In an April 8, 1998, conference call between ACT, AOS, and AUA, it was agreed that a Data Point (DP) should be added in the Y2K software build to keep track of this condition and cause an MPS alarm when an adaptable Good/Bad QFB ratio threshold is exceeded. This problem was classified as Major and remains open. (Refer to PTR OTE-058.)

4.4.1.14.3.3 PTRs Generated.

See appendix B for the complete PTR details. The PTRs generated with respect to this test are:

Critical: OTE-007 - Closed
OTE-012 - Closed
OTE-030 - Closed

Major: OTE-008 - Closed
OTE-010 - Closed
OTE-013 - Closed
OTE-057 - Closed
OTE-058 - Open

Moderate: OTE-055 - Open

4.4.1.15 Test AL-10.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet this objective, this test verified that:

a. ADAS stored the NLDN lightning data (only that lightning information contained in ADAS-generated METAR and SPECI messages).

4.4.1.15.1 Description.

This scenario involved four simulated AWOSs. Each AWOS simulator was based on the awos_std sequence file. This standard AWOS sequence file was modified such that octet 57, bit 0 was set. This bit indicates that a lightning activity SPECI should be generated. Further modification of the standard AWOS sequence file was made for this test as follows:

AWOS #1 - At minutes 1, 3, 5, 7, 9, 11, 13, and 15, octet 57, bit 7 (lightning at airport) was set. This indicated thunderstorm begin for these minutes. At minutes 2, 4, 6, 8, 10,

12, 14, and 16, none of the bits for octet 57 or 58 were set. This indicated thunderstorm end for these minutes.

AWOS #2 - At minutes 1, 3, 5, 7, 9, 11, 13, and 15, octet 57, bit 7 (lightning in vicinity of airport) was set. This indicated thunderstorm begin for these minutes. At minutes 2, 4, 6, 8, 10, 12, 14, and 16, none of the bits for octet 57 or 58 were set. This indicated thunderstorm end for these minutes.

AWOS #3 - This simulator was varied for each minute. The following are the details for each minutes activity:

Minute 1 - octet 58, bit 0 was set indicating the N sector received a lightning strike.
Minute 2 - octet 58, bit 1 was set indicating the NE sector received a lightning strike.
Minute 3 - octet 58, bit 2 was set indicating the E sector received a lightning strike.
Minute 4 - octet 58, bit 3 was set indicating the SE sector received a lightning strike.
Minute 5 - octet 58, bit 4 was set indicating the S sector received a lightning strike.
Minute 6 - octet 58, bit 5 was set indicating the SW sector received a lightning strike.
Minute 7 - octet 58, bit 6 was set indicating the W sector received a lightning strike.
Minute 8 - octet 58, bit 7 was set indicating the NW sector received a lightning strike.
Minute 9 - octet 57, bit 6 was set indicating that zone 1 received a lightning strike and octet 58, bit 0 was set indicating the N sector received a lightning strike.
Minute 10 - octet 57, bit 6 was set indicating that zone 1 received a lightning strike and octet 58, bit 1 was set indicating the NE sector received a lightning strike.
Minute 11 - octet 57, bit 6 was set indicating that zone 1 received a lightning strike and octet 58, bit 2 was set indicating the E sector received a lightning strike.
Minute 12 - octet 57, bit 6 was set indicating that zone 1 received a lightning strike and octet 58, bit 3 was set indicating the SE sector received a lightning strike.
Minute 13 - octet 57, bit 7 was set indicating that zone 2 received a lightning strike and octet 58, bit 4 was set indicating the S sector received a lightning strike.
Minute 14 - octet 57, bit 7 was set indicating that zone 2 received a lightning strike and octet 58, bit 5 was set indicating the SW sector received a lightning strike.
Minute 15 - octet 57, bit 7 was set indicating that zone 2 received a lightning strike and octet 58, bit 6 was set indicating the W sector received a lightning strike.
Minute 16 - octet 57, bit 7 was set indicating that zone 2 received a lightning strike and octet 58, bit 7 was set indicating the NW sector received a lightning strike.

Also,
Minutes 1 through 16- octet 68, bit 3 was set indicating Automated Lightning Remarks were present. Octet 69 indicated the appropriate Automated Lightning Remark to correspond to the octet 58 bit settings.

AWOS #4 - At minutes 1, 4, 7, and 10, octet 14, bit 0 (Thunderstorm Begin) was set. At minutes 2, 5, 8, and 11, octet 14, bit 1 (Thunderstorm Increase) was set. At minutes 3, 6, 9, and 12, octet 14, bit 2 (Thunderstorm End) was set. At minute 13, 14, 15, and 16 all bits in octet 57 and 58 were set to generate the TSNO Auto Remark. For each minute, also Octet 57, bit 0 was set in order to indicate a SPECI.

4.4.1.15.2 Data Reduction and Analysis Method.

Generated METAR message archive and IPS WMSCR file:

To verify that the lightning data was stored as part of the generated METAR messages, analysis was performed on the archive file. Comparison of the IPS WMSCR METAR file contained the same messages.

For simulator #1, analysis of this file revealed that for minutes 1, 3, 5, 7, 9, 11, 13, and 15, a "TS" appeared for the present weather field. For minutes 2, 4, 6, 8, 10, 12, 14, and 16, the "TS" was not in the present weather field. Additionally, for each minute that included a "TS", there was a TSBxx added to the Auto Remarks field, where xx was the actual test time for when the thunderstorm began. Also, for each minute that did not include a "TS", there was a TSExx added to the Auto Remarks field, where xx was the actual test time for when the thunderstorm ended. These TSB and TSE remarks continued to accumulate for the duration of the test.

For simulator #2, analysis of this file revealed that for minutes 1, 3, 5, 7, 9, 11, 13, and 15, a "VCTS" appeared for the present weather field. For minutes 2, 4, 6, 8, 10, 12, 14, and 16, the "VCTS" was not in the present weather field. Additionally, for each minute that included a "VCTS", there was a TSBxx added to the Auto Remarks field, where xx was the actual test time for when the thunderstorm began. Also, for each minute that did not include a "VCTS", there was a TSExx added to the Auto Remarks field, where xx was the actual test time for when the thunderstorm ended. These TSB and TSE remarks continued to accumulate for the duration of the test.

For simulator #3, analysis of this file revealed that for:

minute 1 - "LTG DSNT N" appeared for the Automated Lightning Remark.
minute 2 - "LTG DSNT NE" appeared for the Automated Lightning Remark.

minute 3 - "LTG DSNT E" appeared for the Automated Lightning Remark.
minute 4 - "LTG DSNT SE" appeared for the Automated Lightning Remark.
minute 5 - "LTG DSNT S" appeared for the Automated Lightning Remark.
minute 6 - "LTG DSNT SW" appeared for the Automated Lightning Remark.
minute 7 - "LTG DSNT W" appeared for the Automated Lightning Remark.
minute 8 - "LTG DSNT NW" appeared for the Automated Lightning Remark.
minute 9 - "TS" appeared for the present weather field and "LTG DSNT N" in the Automated Lightning Remark.
minute 10 - "TS" appeared for the present weather field and "LTG DSNT NE" in the Automated Lightning Remark.
minute 11 - "TS" appeared for the present weather field and "LTG DSNT E" in the Automated Lightning Remark.
minute 12 - "TS" appeared for the present weather field and "LTG DSNT SE" in the Automated Lightning Remark.
minute 13 - "VCTS" appeared for the present weather field and "LTG DSNT S" in the Automated Lightning Remark.
minute 14 - "VCTS" appeared for the present weather field and "LTG DSNT SW" in the Automated Lightning Remark.
minute 15 - "VCTS" appeared for the present weather field and "LTG DSNT W" in the Automated Lightning Remark.
minute 16 - "VCTS" appeared for the present weather field and "LTG DSNT NW" in the Automated Lightning Remark.

For simulator #4, analysis of this file revealed that for minutes 1, 4, 7, and 10 of this scenario, a TSBxx was not included in the Auto Remarks section. For minutes 2, 5, 8, and 11, a TSIxx was not included in the Auto Remarks section. For minutes 3, 6, 9, and 12 a TSExx was not included in the Auto Remarks section. The xx represented the minute the SPECI was sent out. For minutes 13, 14, 15, and 16, a TSNO remark was generated.

For this test, two out of two Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.15.3 Results and Discussion.

4.4.1.15.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.15.3.2 Significant Problems.

a. During OT&E #1, it was discovered that ADAS did not generate a TSNO remark in the Metar message when all octet 57 and

58 bits were set (xff). This problem is classified as Major. DME implemented a software fix into software build 4.19. This fix was tested during OT&E #2 and the data from al-10-2.cap verified that this problem was corrected. This PTR has been closed. (Refer to PTR OTE-039).

b. PTR OTE-040 was generated, during OT&E #1, as the result of an error in the sequence file that was used for this test. Since then the sequence file has been modified and the test ran during OT&E #2 without a problem. This PTR has been closed. (Refer to PTR OTE-040).

4.4.1.15.3.3 PTRs Generated.

See appendix B for the complete PTR details. The PTRs generated with respect to this test are:

Major: OTE-039 - Closed
OTE-040 - Closed

4.4.1.16 Test AL-11.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A).

In order to meet this objective, this test verified that:

a. ADAS could process the quality factor bit received as part of the NLDN LDD data.

4.4.1.16.1 Description.

This scenario involved one simulated AWOS. The IPS sent flash records that fell into various AWOS zones/sectors. The scenario was repeated twice. The first time all the flash records contained a "good" quality factor bit. The second time all the flash records contained a "bad" quality factor bit.

4.4.1.16.2 Data Reduction and Analysis Method.

The following analysis was performed for the data collected.

LAD messages:

The LAD messages were logged on the IPS as part of the AWOS incoming message log. Analysis of the LAD messages sent indicated that for:

minute 2, a flash occurred in zone 1;
minute 3, a flash occurred in zone 1 and 2;
minute 4, a flash occurred in zones 1 and 2 and sector 1;
minute 5, a flash occurred in zones 1 and 2 and sectors 1 and 2;

minute 6, a flash occurred in zones 1 and 2 and sectors 1, 2, and 3;
minute 7, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, and 4;
minute 8, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, and 5;
minute 9, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, 5, and 6;
minute 10, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, 5, 6, and 7;
minute 11, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, 5, 6, 7, and 8;
minute 12, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, 5, 6, 7, and 8;
minute 13, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, 5, 6, 7, and 8;
minute 14, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, 5, 6, 7, and 8;
minute 15, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, 5, 6, 7, and 8;
minute 16, a flash occurred in zones 1 and 2 and sectors 1, 2, 3, 4, 5, 6, 7, and 8;
minute 17, a flash occurred in zone 2 and sectors 1, 2, 3, 4, 5, 6, 7, and 8;
minute 18, a flash occurred in sectors 1, 2, 3, 4, 5, 6, 7, and 8;
minute 19, a flash occurred in sectors 2, 3, 4, 5, 6, 7, and 8;
minute 20, a flash occurred in sectors 3, 4, 5, 6, 7, and 8;
minute 21, a flash occurred in sectors 4, 5, 6, 7, and 8;
minute 22, a flash occurred in sectors 5, 6, 7, and 8;
minute 23, a flash occurred in sectors 6, 7, and 8;
minute 24, a flash occurred in sectors 7, and 8;
minute 25, a flash occurred in sector 8;
minutes 26 through 28 contained no indications of flashes as a result of the "bad" quality factor bit.

<u>For the ITWS</u>:

The LDD messages were logged on the IPS for each ITWS as part of their incoming message log. Analysis of the ITWS's LDD messages indicated that each of the lightning flash records were passed along from minutes 1 to 10 and minutes 18 to 27. Since NO quality factor bit screening is performed for LDD messages to ITWS, the flash records for minutes 18 to 27 were also passed along. As a result the LDD indicated for:

minute 1, a flash occurred in zone 1.
minute 2, a flash occurred in zone 2;
minute 3, a flash occurred in sector 1;
minute 4, a flash occurred in sector 2;
minute 5, a flash occurred in sector 3;
minute 6, a flash occurred in sector 4;

minute 7, a flash occurred in sector 5;
minute 8, a flash occurred in sector 6;
minute 9, a flash occurred in sector 7;
minute 10, a flash occurred in sector 8;
minute 18, a flash occurred in zone 1.
minute 19, a flash occurred in zone 2;
minute 20, a flash occurred in sector 1;
minute 21, a flash occurred in sector 2;
minute 22, a flash occurred in sector 3;
minute 23, a flash occurred in sector 4;
minute 24, a flash occurred in sector 5;
minute 25, a flash occurred in sector 6;
minute 26, a flash occurred in sector 7;
minute 27, a flash occurred in sector 8;

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.1.16.3 Results and Discussion.

4.4.1.16.3.1 Data.

See appendix C for a list of the files that contain the test data results and evaluation criteria CR numbers indicated in the Data Reduction and Analysis Method section above.

4.4.1.16.3.2 Significant Problems.

None

4.4.1.16.3.3 PTRs Generated.

None

4.4.2 Category DE - Degraded Operation Tests.

4.4.2.1 Test DE-01.

The objective of ADAS/ALDARS Regression Test DE-01 was to verify ADAS functionality was not adversely impacted by the ALDARS contact modifications to the previously baselined version of the ADAS software. The functionality verifies that: (1) if there is a communications failure with any of the configured AWOS/ASOS sites in the Initialization State, then ADAS indicates it is in REDUCED mode when it reaches the Operational State; and that, (2) ADAS detects when the AWOS/ASOS site becomes available, re-establishes communications with the MPS, and switches to FULL mode.

4.4.2.1.1 Description.

The IPS test started with all but one AWOS simulators enabled. The ADAS system started and during the initialization phase detected the AWOS station that was off-line. ADAS continued to the operational state, running in 'Reduced' Mode. The MPS requested the RMS Master Data Point sys_mode to record the System Mode state (reduced/full). The IPS system enabled the AWOS station and ADAS switched to Full Mode. The MPS simulator retrieved the RMS Master Data Point sys_mode. IPS prompted the test operator to report event type 10 event log entries. The test terminated when the test operator acknowledged the IPS prompt.

4.4.2.1.2 Data Reduction and Analysis Method.

Test DE-01's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-01's TCF are included below in this report. See appendix C paragraph for test DE-01 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.1.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-01.

4.4.2.1.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-01.

4.4.2.1.3.2 Significant Problems.

None

4.4.2.1.3.3 PTRs Generated.

None

4.4.2.2 Test DE-02.

The objective of ADAS/ALDARS Regression Test DE-02 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the

ADAS software. This functionality test verifies that: (1) if there is a communications failure with MPS in the Initialization State, then ADAS is in REDUCED mode when it reaches the Operational State; and (2) ADAS detects when the MPS becomes available, re-establishes communications with the MPS, and sets the sys_mode datapoint to FULL.

4.4.2.2.1 Description.

The IPS test started with the MPS simulator disabled. The ADAS system was started and during the initialization phase detected MPS was not available. ADAS set the sys_mode datapoint to REDUCED and continued to the Operational State. An IPS event instructed the Test Operator to log into the ASC, display the RMS Master Data Point Group, press printscreen, logout, and acknowledge the IPS message. After the operator acknowledged the IPS event, the MPS simulator was enabled and ADAS switched to Full Mode. The MPS Simulator requested the RMS Master Data Point sys_mode. The IPS instructed the Test Operator to login the ASC, request a Event Log Report for event type 7, logout, and acknowledge the IPS prompt. After the operator acknowledged the second IPS event, the IPS test was terminated.

4.4.2.2.2 Data Reduction and Analysis Method.

Test DE-02's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-02's TCF are included below in this report. See appendix C paragraph for test DE-02 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.2.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-02.

4.4.2.2.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-02.

4.4.2.2.3.2 Significant Problems.

None

4.4.2.2.3.3 PTRs Generated.

None

4.4.2.3 Test DE-03.

The objective of ADAS/ALDARS Regression Test DE-03 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies that: (1) if there is a communications failure with DLP in the Initialization State, then ADAS is in REDUCED mode when it reaches the Operational State; and (2) ADAS detects when the DLP becomes available, establishes communications with the DLP, and switches to FULL mode.

4.4.2.3.1 Description.

The IPS test was started with the DLP simulator disabled. The ADAS system started and during the initialization phase detected DLP was unavailable. ADAS continued to the Operational State, running in Reduced Mode. The MPS then requested RMS Master System Mode Data Point. The IPS then enabled the DLP simulator and ADAS switched to Full Mode. The IPS prompted the operator to login to the ASC, request an event log report for event type 1, logoff the ASC, and acknowledge the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.2.3.2 Data Reduction and Analysis Method.

Test DE-03's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-03's TCF are included below in this report. See appendix C paragraph for test DE-03 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.3.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-03.

4.4.2.3.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-03.

4.4.2.3.3.2 Significant Problems.

None

4.4.2.3.3.3 PTRs Generated.

None

4.4.2.4 Test DE-04.

The objective of ADAS/ALDARS Regression Test DE-04 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies that: (1) if there is a communications failure with WARP in the Initialization State, then ADAS is in REDUCED mode when it reaches the Operational State; and (2) ADAS detects when the WARP becomes available, re-establishes communications with the WARP, and switches to FULL mode.

4.4.2.4.1 Description.

The IPS test started with the WARP simulator disabled. The ADAS system started and during the initialization phase detected WARP was not available. ADAS continued to the Operational State, running in Reduce Mode. The MPS requested RMS Master System Mode Data Point. The IPS then enabled the WARP simulator, ADAS detected the availability of WARP and switched to Full Mode. The operator was prompted to login, request an event log report for event type 1, logout, and acknowledge the IPS prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.2.4.2 Data Reduction and Analysis Method.

Test DE-04's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-04's TCF are included below in this report. See appendix C paragraph for test DE-04 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.4.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-04.

4.4.2.4.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-04.

4.4.2.4.3.2 Significant Problems.

None

4.4.2.4.3.3 PTRs Generated.

None

4.4.2.5 Test DE-05.

The objective of ADAS/ALDARS Regression Test DE-05 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies that: (1) if there is a communications failure with WMSCR in the Initialization State, then ADAS is in REDUCED mode when it reaches the Operational State; and (2) ADAS detects when the WMSCR becomes available, re-establishes communications with the WMSCR, and switches to FULL mode.

4.4.2.5.1 Description.

The IPS test started with the WMSCR simulator disabled. The ADAS system started and during the initialization phase detected WMSCR was unavailable. ADAS continued to the Operational State, running in Reduced Mode. The MPS requested the RMS Master System Mode DP, then the IPS will enable the WMSCR simulator. ADAS detected the availability of the WMSCR, established communications, and switched to System Mode Full. The IPS prompted the operator to login, request an event log report for event type 12, logout, and acknowledge the prompt. When acknowledged, the IPS terminated the test.

4.4.2.5.2 Data Reduction and Analysis Method.

Test DE-05's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-05's TCF are included below in this report. See appendix C paragraph for test DE-05 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.5.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-05.

4.4.2.5.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-05.

4.4.2.5.3.2 Significant Problems.

None

4.4.2.5.3.3 PTRs Generated.

None

4.4.2.6 Test DE-06.

The objective of ADAS/ALDARS Regression Test DE-06 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies that: (1) if there is a communications failure with CTS in the Initialization State, then ADAS is in REDUCED mode when it reaches the Operational State; and (2) ADAS detects when the CTS becomes available, re-establishes communications with the CTS, and switches to FULL mode.

4.4.2.6.1 Description.

The IPS test started with the CTS simulator disabled. The ADAS system started and during the initialization phase detected CTS was unavailable. ADAS continued to the Operational State, running in Reduce Mode. The MPS requested the RMS Master System Mode Data Point, then the CTS simulator was enabled. ADAS detected the incoming CTS signal and switched to System Mode Full. The IPS prompted the test operator to login, request an event log report for event type 10, logout, and acknowledged the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.2.6.2 Data Reduction and Analysis Method.

Test DE-06's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-06's TCF

are included below in this report. See appendix C paragraph for test DE-06 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.6.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-06.

4.4.2.6.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-06.

4.4.2.6.3.2 Significant Problems.

None

4.4.2.6.3.3 PTRs Generated.

None

4.4.2.7 Test DE-07.

The objective of ADAS/ALDARS Regression Test DE-07 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies ADAS's ability to handle communications errors on the MPS link.

4.4.2.7.1 Description.

Verification was achieved by having the MPS simulator make a Subsystem Status request, and established the MPS link was up when ADAS responded to the request. After the response was returned, the MPS simulator disabled communications, waited for 2 minutes, then re-enabled communications. Two additional minutes of run time established that MPS communications had returned to normal.

4.4.2.7.2 Data Reduction and Analysis Method.

Test DE-07's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-07's TCF

are included below in this report. See appendix C paragraph for test DE-07 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.7.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-07.

4.4.2.7.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-07.

4.4.2.7.3.2 Significant Problems.

None

4.4.2.7.3.3 PTRs Generated.

None

4.4.2.8 Test DE-08.

The objective of ADAS/ALDARS Regression Test DE-08 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies ADAS's ability to handle communications errors on the WARP and DLP links.

4.4.2.8.1 Description.

Verification was achieved by first operating normally for 1 minute. This established that the links were up and running. Then, the DLP and WARP simulators disabled communications, waited 2 minutes, then re-enabled communications. Two additional minutes of run time established that communications had returned to normal.

4.4.2.8.2 Data Reduction and Analysis Method.

Test DE-08's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-08's TCF are included below in this report. See appendix C paragraph for test DE-08 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.8.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-08.

4.4.2.8.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'DE-08' section.

4.4.2.8.3.2 Significant Problems.

None

4.4.2.8.3.3 PTRs Generated.

None

4.4.2.9 Test DE-10.

The objective of ADAS/ALDARS Regression Test DE-10 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies ADAS's: (1) time keeping while the CTS link is down; and (2) time adjustment when the CTS link is reconnected.

4.4.2.9.1 Description.

Verification was achieved by running normally for 1 ½ minutes to synchronize CTS (IPS) and ADAS, then the test operator was prompted by the IPS to manually disconnects the CTS cable using the Patch Panel and acknowledge the prompt. After the acknowledgement, the IPS advanced the test time 5 minutes ahead, waited 60 seconds, then prompted the operator to reconnect the CTS. The reception of the re-enabled CTS signal was detected by ADAS, as was the difference between the CTS time and the ADAS unix system time. The ADAS adjusted the unix system time to match the time received from the CTS, and set the System Mode to Full. The IPS waited for 2 minutes then prompted the operator to login, request a report for event type 9 and 10, logout, and acknowledge the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.2.9.2 Data Reduction and Analysis Method.

Test DE-10's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-10's TCF are included below in this report. See appendix C paragraph for test DE-10 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.9.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-10.

4.4.2.9.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-10.

4.4.2.9.3.2 Significant Problems.

None

4.4.2.9.3.3 PTRs Generated.

None

4.4.2.10 Test DE-14.

The objective of ADAS/ALDARS Regression Test DE-14 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies ADAS properly reports external error conditions.

4.4.2.10.1 Description.

Verification was achieved by generating three events and monitoring their responses. The first event was generated by removing the write permissions from the Adaptation Parameter file, "/usr/adas/adasrun/data/ SS/adb_env_prm", and attempting to permanently store a new version of the parameters - resulting in a file error. The second event was generated by an AWOS simulator, every third AWOS messages sent to ADAS had a timestamp that was 30 minutes. The MPS simulator generated the third event by sending erroneous data command requests to ADAS. After

generation of the second event, the test operator logged in, reset all data points then logged off. The Test Operator waited for the second Erroneous Message Event (the third generated event) to be printed, and noted that no event notification was generated at the ASC. The Test Operator then logged into the ASC, requested a report for event types 21 and 43, logged out, and acknowledge the IPS event. When the prompt was acknowledged, the IPS terminated the test.

4.4.2.10.2 Data Reduction and Analysis Method.

Test DE-14's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-14's TCF are included below in this report. See appendix C paragraph for test DE-14 for the completed TCF procedure steps.

For this test, five out of five Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.10.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-14.

4.4.2.10.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-14.

4.4.2.10.3.2 Significant Problems.

None

4.4.2.10.3.3 PTRs Generated.

None

4.4.2.11 Test DE-15.

The objective of ADAS/ALDARS Regression Test DE-15 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies ADAS reports CTS error conditions.

4.4.2.11.1 Description.

Verification was achieved using the CTS simulator to send invalid data for a period of at least 3 seconds. This produced at least three events indicating a CTS error had occurred. Next the CTS simulator disabled and re-enabled communications three times. This produced six CTS status change events.

4.4.2.11.2 Data Reduction and Analysis Method.

Test DE-15's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-15's TCF are included below in this report. See appendix C paragraph for test DE-15 for the completed TCF procedure steps.

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.11.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-15.

4.4.2.11.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test DE-15.

4.4.2.11.3.2 Significant Problems.

None

4.4.2.11.3.3 PTRs Generated.

None

4.4.2.12 Test DE-16.

The objective of ADAS/ALDARS Regression Test DE-16 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verifies that ADAS would operate with I/O errors.

4.4.2.12.1 Description.

Verification was achieved by having one AWOS/ASOS simulator, and all non-AWOS/ASOS/non-NLDN simulators, disable communications for 1 minute. Approximately 2-3 minutes after all communications had been disabled and re-enabled, the test operator requested a report for event types 1, 2, 5, 7, 10, 12, and 61. The ADAS Event Log Report was analyzed to determine if each disconnection and subsequent reconnection were detected and recorded.

4.4.2.12.2 Data Reduction and Analysis Method.

Test DE-16's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-16's TCF are included below in this report. See appendix C paragraph for test DE-16 for the completed TCF procedure steps.

For this test, two out of two Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.12.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-16.

4.4.2.12.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'DE-16' section.

4.4.2.12.3.2 Significant Problems.

None

4.4.2.12.3.3 PTRs Generated.

None

4.4.2.13 Test DE-17 - Recoverable Software Errors.

RETIRED: Actions in this test procedure artificially alter the operation of the ADAS program in a way that cannot occur in the real world. While the testing technique used worked with the original ADAS, for which this test was originally developed, the technique does not work with the Mods or ALDARS version of the ADAS. As the conditions employed by this testing technique cannot occur in an operational environment, this test procedure

has been deleted from the ADAS Regression Test Procedures and the ADAS/ALDARS OT&E Test Procedures. ADAS/ALDARS OT&E PTR OTE-005, which was generated during this test has been closed.

4.4.2.13.1 Description.

This procedure stopped the communications application interface process "cdl_io -d" using the unix 'kill -9' command. Recovering from the error induced by this action is beyond the scope of the ADAS/ALDARS application program.

4.4.2.13.2 Data Reduction and Analysis Method.

Not Applicable - this test has been retired.

4.4.2.13.3 Results and Discussion.

4.4.2.13.3.1 Data.

Not Applicable

4.4.2.13.3.2 Significant Problems.

Not Applicable

4.4.2.13.3.3 PTRs Generated.

See appendix B for complete details of all PTRs generated during OT&E testing. The PTRs generated with respect to OT&E formal test runs of the elevated DT&E tests were:

Moderate: OTE-005 - CLOSED

4.4.2.14 Test DE-18.

The objective of ADAS/ALDARS Regression Test DE-18 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

This functionality test verifies that ADAS will a establish a communications link with the NLDN when it becomes active, even though it was not active when the ADAS application initialized at startup.

4.4.2.14.1 Description.

The IPS test was started with the NLDN simulator cable disconnected. The ADAS system started and during the initialization phase detected NLDN was not available. ADAS continued to the Operational State, running in Reduced Mode. The MPS requested the RMS Master System Mode Data Point. The IPS system prompted the test operator to reconnect the NLDN to ADAS,

and acknowledge the prompt. After the prompt was acknowledged, the IPS waited 60 seconds repeating the MPS request for the System Mode datapoint. After ADAS responded to the datapoint request, the test operator was prompted to login, request an event log report for event type 61, logout, and acknowledge the prompt. When this prompt was acknowledged, the IPS terminates the test.

4.4.2.14.2 Data Reduction and Analysis Method.

Test DE-18's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from DE-18's TCF are included below in this report. See appendix C paragraph for test DE-18 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.2.14.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test DE-18.

4.4.2.14.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'DE-18' section.

4.4.2.14.3.2 Significant Problems.

None

4.4.2.14.3.3 PTRs Generated.

None

4.4.3 Category DTE.

The following subparagraphs summarize the OT&E Category DTE formal test runs.

4.4.3.1 OT&E Formal Test Runs.

Verification of 28 of the ADAS/ALDARS OT&E TVRTM Metar requirements, MSS2-001 through MSS2-011 and MSS2-013 through MSS2-029, listed in appendix A, table 10.2-3, were addressed by

OT&E formal test runs of Development Test and Evaluation (DT&E) tests.

4.4.3.1.1 Description.

Detailed test descriptions and procedures have been provided in the ALDARS contractor's Software Test Plan and Software Test Procedures.

4.4.3.1.2 Data Reduction and Analysis Method.

Evaluation was performed as detailed in the contractor's Software Test Procedures. To facilitate the analysis, ADAS Program Support Facility (PSF) data reduction utilities preprocessed the test data. Test data processing simplified analysis by splitting WMSCR, DLP, WARP, and ITWS log files into individual files based on message site ID.

4.4.3.1.3 Results and Discussion.

The following paragraphs discuss the results of ADAS/ALDARS OT&E formal test runs of the DTE tests.

4.4.3.1.3.1 Data.

The ADAS/ALDARS OT&E formal test run data were, except for the date and timestamp, identical to the test results obtained during the DT&E formal test runs. Detailed test data and analysis results have already been provided by the ADAS/ALDARS contractor in the final ADAS/ALDARS DT&E Test Report.

4.4.3.1.3.2 Significant Problems.

The ADAS SI failed to clear the AWOS Common Weather Parameters Pressure Rise/Fall Threshold field when the spacebar was pressed. (Refer to PTR OTE-046.) PTR OTE-046 was not corrected in build 4.19. DME has indicated, in the Version Description Document (VDD), for ADAS Build 4.19, that this error will be corrected in the ADAS/Y2K software build.

During the first run of Test 180, IPS test D25-01, the two problems occurred resulting in the generation of PTRs OTE-017 and OTE-018. These problems have not been reproduced and occurred only once after running unattended over a weekend. The problems did not occur during the second execution of the test, and PTRs OTE-017 and OTE-018 have been closed.

4.4.3.1.3.3 PTRs Generated.

See appendix B for complete details of all PTRs generated during OT&E testing. The PTRs generated with respect to OT&E formal test runs of the elevated DT&E tests were:

Major:	OTE-017 - CLOSED
	OTE-018 - CLOSED
Moderate:	OTE-046 - OPEN

4.4.3.2 Conclusions.

The ADAS/ALDARS software is in accordance with ADAS/ALDARS OT&E TVRTM requirements MSS2-001 through MSS2-011 and MSS2-013 through MSS2-029, listed in table 10.2-3 in appendix A of this report.

4.4.3.3 Recommendations.

The ADAS/Y2K Contract Statement Of Work (SOW) must include ADAS/ALDARS PTR OTE-046 as a ADAS/Y2K contract requirement. (See ADAS/ALDARS OT&E Test Category PT.)

4.4.4 Category IN - Integration Tests.

4.4.4.4 Test IN-01.

The objective of ADAS/ALDARS Regression Test IN-01 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

4.4.4.4.1 Description.

The IPS test was started with all configured simulators enabled. After running for two mission cycles, the MPS simulator was disabled for approximately 30 seconds (three retries presuming a retry is 10 seconds). The MPS simulator was then re-enabled and run for two additional mission cycles. The operator was then prompted to login, request a report for event type 7, logout, and acknowledge the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.4.4.2 Data Reduction and Analysis Method.

Test IN-01's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IN-01's TCF are included below in this report. See appendix C paragraph for test IN-01 for the completed TCF procedure steps.

For this test, two out of two Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.4.4.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IN-01.

4.4.4.4.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'IN-01' section.

4.4.4.4.3.2 Significant Problems.

None

4.4.4.4.3.3 PTRs Generated.

None

4.4.4.5 Test IN-02.

The objective of ADAS/ALDARS Regression Test IN-02 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

4.4.4.5.1 Description.

The IPS test was started with all configured simulators enabled. After running for two mission cycles, the first AWOS simulator (site K001) was disabled for approximately 30 seconds (three retries presuming a retry is 10 seconds). The simulator was then re-enabled and run for two additional mission cycles. The operator was then prompted to login, request a report for event type 5, logout, and acknowledge the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.4.5.2 Data Reduction and Analysis Method.

Test IN-02's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IN-02's TCF are included below in this report. See appendix C paragraph for test IN-02 for the completed TCF procedure steps.

For this test, two out of two Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.4.5.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IN-02.

4.4.4.5.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'IN-02' section.

4.4.4.5.3.2 Significant Problems.

None

4.4.4.5.3.3 PTRs Generated.

None

4.4.4.6 Test IN-03.

The objective of ADAS/ALDARS Regression Test IN-03 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

4.4.4.6.1 Description.

The IPS test was started with all configured simulators enabled. After running for two mission cycles, the DLP simulator was disabled for approximately 30 seconds (three retries presuming a retry is 10 seconds). The DLP simulator was then re-enabled and run for two additional mission cycles. The operator was then prompted to login, request a report for event type 1, logout, and acknowledge the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.4.6.2 Data Reduction and Analysis Method.

Test IN-03's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IN-03's TCF are included below in this report. See appendix C paragraph for test IN-03 for the completed TCF procedure steps.

For this test, two out of two Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.4.6.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IN-03.

4.4.4.6.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in appendix C, 'IN-03' section.

4.4.4.6.3.2 Significant Problems.

None

4.4.4.6.3.3 PTRs Generated.

None

4.4.4.7 Test IN-04.

The objective of ADAS/ALDARS Regression Test IN-04 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

4.4.4.7.1 Description.

The IPS test was started with all configured simulators enabled. After running for two mission cycles, the WARP simulator was disabled for approximately 30 seconds (three retries presuming a retry is 10 seconds). The WARP simulator was then re-enabled and run for two additional mission cycles. The operator was then prompted to login, request a report for event type 2, logout, and acknowledge the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.4.7.2 Data Reduction and Analysis Method.

Test IN-04's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IN-04's TCF are included below in this report. See appendix C paragraph for test IN-04 for the completed TCF procedure steps.

For this test, two out of two Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.4.7.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IN-04.

4.4.4.7.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'IN-04' section.

4.4.4.7.3.2 Significant Problems.

None

4.4.4.7.3.3 PTRs Generated.

None

4.4.4.8 Test IN-05.

The objective of ADAS/ALDARS Regression Test IN-05 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

4.4.4.8.1 Description.

The IPS test was started with all configured simulators enabled. After running for two mission cycles, the WMSCR simulator was disabled for approximately 30 seconds (three retries presuming a retry is 10 seconds). The WMSCR simulator was then re-enabled and run for two additional mission cycles. The operator was then prompted to login, request a report for event type 12, logout, and acknowledge the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.4.8.2 Data Reduction and Analysis Method.

Test IN-05's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IN-05's TCF are included below in this report. See appendix C paragraph for test IN-05 for the completed TCF procedure steps.

For this test, two out of two Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.4.8.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IN-05.

4.4.4.8.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in appendix C, 'IN-05' section.

4.4.4.8.3.2 Significant Problems.

None

4.4.4.8.3.3 PTRs Generated.

None

4.4.4.9 Test IN-12D - NADIN Users (ITWS,DLP,WARP,WMSCR).

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A). In order to meet this objective, this test was used to verify that the ADAS communicated with the ITWSs, DLP, WARP, and WMSCR IAW:

a. The service Class 4 of the Transport Layer protocol defined in ISO 8073, and

b. The Transition State (pre-End State) X.25 protocols for the Network Layer, Data link Layer, and Physical Layer as stated in the NADIN ICD, NAS-IC-25084302.

4.4.4.9.1 Description.

The ADAS configuration was configured to correspond to the IPS configuration. Additionally, the ADAS was configured to geographically cover the continental U.S. This was accomplished by accessing the site adaptation data using the ASC. With the ADAS configured in this way, the ITWS simulators received all LDD Flash Messages. This allowed for easier verification that ADAS properly disseminated all LDD Flash Messages to ITWS.

The IPS was configured to correspond to the ADAS configuration including the simulation of 5 circuits with 2 AWOS stations and 13 ASOS stations. One circuit had 10 stations (drops). The other four circuits had five stations. The reason to simulate 15

stations was to simulate an ADAS operational environment. This served to verify that the ADAS s SW/HW could properly service an NLDN together with many (simulated) AWOS/ASOS stations. Additionally, IPS was configured to simulate 6 ITWSs, WARP, DLP, WMSCR and the Lightning Simulator Script which contained a valid LDD Flash Messages with maximum length (20 Flash Records).

4.4.4.9.2 Data Reduction and Analysis Method.

The data file on the Data Capture PC (PC1) that captured IPS data contained the following:

```
AWOS ERROR file:   iIN-12DA.AWER
ITWS(1) LDD file : iIN-12DA.I1LD
ITWS(1) AWOS file: iIN-12DA.I1AW
WARP(1) AWOS file: iIN-12DA.RWPA
DLP (1) AWOS file: iIN-12DA.DLPA
WMSCR SHEF file:   iIN-12DA.SHEF
WMSCR METAR file:  iIN-12DA.META
WMSCR SUMMARY file:iIN-12DA.SUMM
AWOS MESSAGES file:     oIN-12DA.AWOS
NLDN LDD MESSAGES file: oIN-12DA.NLDN
SHEF MESSAGES file:     oIN-12DA.SHEF
METAR MESSAGES file:    oIN-12DA.META
SUMMARY MESSAGES file:  oIN-12DA.SUMM
```

The data file on the Data Capture PC (PC2) that captured ADAS data contained the following:

a. The NLDN Communications Datapoint.
The DLP Communications Datapoint.
The WARP Communications Datapoint.
The ITWS1 Communications Datapoint.
The WMSCR Communications Datapoint.

b. 01 -- EVENT Log for status of the DLP connection had changed.
02 -- EVENT Log for status of the WARP connection had changed.
05 -- EVENT Log for status of the AWOS/ASOS connection had changed.
12 -- EVENT Log for status of the WMSCR connection had changed.
61 -- EVENT Log for status of the ITWS connection had changed.
62 -- EVENT Log for status of the NLDN connection had changed.

The test data in the NLDN LDD OUTPUT MESSAGE file and the ITWS1 LDD (IML) file were examined to verify that the LDD bound for ITWS moved through the ADAS within 5 seconds.

The test data in the ADAS AWOS OUTPUT MESSAGE file and the ITWS1 AWOS (IML) file were examined to verify that the OMO bound for ITWS moved through ADAS within 10 seconds. (K001)

The test data in the ADAS AWOS OUTPUT MESSAGE file and the DLP AWOS (IML) file were examined to verify that the OMO bound for ITWS moved through ADAS within 10 seconds. (K001)

The test data in the ADAS AWOS OUTPUT MESSAGE file and the RWP(WARP) AWOS (IML) file were examined to verify that the OMO bound for ITWS moved through ADAS within 10 seconds. (K001)

The test data in the ADAS AWOS OUTPUT MESSAGE file and the WMSCR METAR INPUT MESSAGE file were examined to verify that the METAR reports moved through the ADAS within 10 seconds. (K001 - AWOS METAR)

The test data in the ADAS METAR OUTPUT MESSAGE file and the WMSCR METAR INPUT MESSAGE file were examined to verify that ADAS disseminated ASOS SPECI messages within 5 seconds. (K006 - ASOS SPECI)

The test data in the ADAS METAR OUTPUT MESSAGE file and the WMSCR METAR INPUT MESSAGE file were examined to verify that ADAS disseminated ASOS METAR messages within 10 seconds. (K005 - ASOS METAR)

The test data in the ADAS AWOS OUTPUT MESSAGE file and the WMSCR METAR INPUT MESSAGE file were examined to verify that the SPECI reports moved through the ADAS within 5 seconds. (K002 - AWOS SPECI)

The test data in the ADAS SUMMARY OUTPUT MESSAGE file and the WMSCR SUMMARY INPUT MESSAGE file were examined to verify that the Daily/Monthly reports processed in the same minute as received.(K007 - AWOS SUMMARY, primary),(K008 - AWOS SUMMARY, intermediate),and (K009 - AWOS SUMMARY, monthly)

The test data in the ADAS SHEF OUTPUT MESSAGE file and the WMSCR SHEF INPUT MESSAGE file were examined to verify that the SHEF reports processed in the same minute as received. (K010 - AWOS SHEF, hourly),(K011 - AWOS SHEF, 15 minute)

The test data in the WMSCR METAR INPUT MESSAGE file was used to verify that the Metar Format message outputted priority of SPECI messages (K002,k006), and METAR messages (k001,k005).

Reviewed the ADAS Event Log for events pertinent to this test, particularly Event Types:

01 -- EVENT Log for status of the DLP connection had changed.

02 -- EVENT Log for status of the WARP connection had changed.

05 -- EVENT Log for status of the AWOS/ASOS connection had changed.

12 -- EVENT Log for status of the WMSCR connection had changed.

61 -- EVENT Log for status of the ITWS connection had changed.

62 -- EVENT Log for status of the NLDN connection had changed.

Reviewed the Communications Datapoint obtained from the ADAS SI to verify that the NADIN Users(ITWS, NLDN, WARP, DLP, WMSCR) properly Interfaced with ADAS.

For this test, four out of seven Evaluation Criteria fully passed and three out of seven Evaluation Criteria partially passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.4.9.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IN-12D.

4.4.4.9.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test IN-12D.

4.4.4.9.3.2 Significant Problems.

None

4.4.4.9.3.3 PTRs Generated.

None

4.4.4.10 Test IN-12E - WMSCR Interface.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A). In order to meet this objective, this test used to verify that the ADAS properly interfaced mechanically, electrically, and functionally with the NLDN Interface "live", AWOS Interface, and WMSCR Interface via the NADIN II packet switching network (PSN).

4.4.4.10.1 Description.

The ADAS was configured to correspond to the IPS with a "live" WMSCR interface, "live" NLDN interface, and two "live" AWOS interfaces configurations. The adaptation database parameters for communication characteristics of the "live" circuit(s) to be tested were placed "IN-SERVICE."

The IPS was configured to correspond to the ADAS configuration including the simulation of 5 circuits with 15 AWOS stations. One circuit had 10 "simulated" stations (drops). The other four circuits had three "simulated" stations and two "live" AWOSs. The reason to simulate 15 stations was to simulate an ADAS operational environment. This served to verify that the ADAS SW/HW could properly service, a WMSCR Interface, NLDN Interface together with many ("live"/"simulated") AWOS stations. Additionally, IPS was configured to simulate CTS.

4.4.4.10.2 Data Reduction and Analysis Method.

Reviewed the ADAS Event Log for events pertinent to this test, particularly Event Types:

05 -- EVENT Log for status of the AWOS/ASOS connection has changed.
12 -- EVENT Log for status of the WMSCR connection has changed.
62 -- EVENT Log for status of the NLDN connection has changed.

Reviewed the Communications Datapoint obtained from the ADAS SI to verify that NLDN interfaced with ADAS.

Correlated/evaluated the data obtained from WMSCR with related ADAS data:

The test data in the ADAS AWOS OUTPUT MESSAGE file and the WMSCR METAR INPUT MESSAGE file were examined to verify that the METAR reports moved through the ADAS within 10 seconds.(K001 - AWOS METAR)

The test data in the ADAS METAR OUTPUT MESSAGE file and the WMSCR METAR INPUT MESSAGE file were examined to verify that ADAS disseminated ASOS SPECI messages within 5 seconds.(K006 - ASOS SPECI)

The test data in the ADAS METAR OUTPUT MESSAGE file and the WMSCR METAR INPUT MESSAGE file were examined to verify that ADAS disseminated ASOS METAR messages within 10 seconds. (K005 - ASOS METAR)

The test data in the ADAS SUMMARY OUTPUT MESSAGE file and the WMSCR SUMMARY INPUT MESSAGE file were examined to verify that the Daily/Monthly reports processed in the same minute as received.(K009 - AWOS SUMMARY, primary),(K010 - AWOS SUMMARY, intermediate),and (K011 - AWOS SUMMARY, monthly)

The test data in the ADAS SHEF OUTPUT MESSAGE file and the WMSCR SHEF INPUT MESSAGE file were examined to verify that the SHEF reports processed in the same minute as received. (K007 - AWOS SHEF, hourly),(K008 - AWOS SHEF, 15 minute)

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.4.10.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IN-12E.

4.4.4.10.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test IN-12E.

4.4.4.10.3.2 Significant Problems.

There were three significant problems during OT&E Formal Test Runs of IN-12E, resulting in the generation of PTRs OTE-003, OTE-048, and OTE-053. PTR OTE-003 was closed after testing of the AOS-540 ADAS/ALDARS Deployment Build verified ADAS reformatted ASOS Metar messages with lines longer than 69 characters. PTR OTE-053 was closed when testing of the deployment build verified ADAS sends SPECI messages to WMSCR in ADUs with a WMO type of "SP." PTR OTE-048 was opened when testing revealed that ADAS fails to complete the current mission cycle if ADAS receives an erroneous AWOS format message. ADAS apparently sends an error message to the responsible AWOS site, then fails to complete the mission phase because it is waiting for the station to resend a correct OMO for the current mission cycle.

4.4.4.10.3.3 PTRs Generated.

See appendix B for complete PTR details. The PTRs generated with respect to this test are:

Major	PTR:	OTE-003 - CLOSED.
Major	PTR:	OTE-048 - OPEN.
Major	PTR:	OTE-053 - CLOSED.

4.4.5 Category IT - ITWS Tests.

4.4.5.1 Test IT-01.

The objective of ADAS/ALDARS OT&E Test IT-01 was to verify ADAS functionality added by the ALDARS contract modifications were similar to associated DLP/WARP functionality in the previously baselined version of the ADAS software (refer to tests IN-03 and IN-04). Test IT-01 also provided supporting data for the verification of ADAS/ALDARS requirement ISS2-001 listed in table 10.2-5, appendix A. This functionality test verified ADAS: established communication with, sent surface observations and lightning data to, detected ITWS communications failures, and resumed message transfer when communications were re-established with; all configured ITWSs.

4.4.5.1.1 Description.

The IPS test began with all configured simulators enabled. Twenty seconds into the third mission cycle, the six ITWS simulators were disabled for approximately 30 seconds (three retries presuming a retry is 10 seconds), then re-enabled. Two mission cycles later, the MPS simulator prompted the operator wait for ITWS communications to resume (as indicated by the IUC), login, report ADAS event type 61, logout, and acknowledge the prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.5.1.2 Data Reduction and Analysis Method.

Test IT-01's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IT-01's TCF are included below in this report. See appendix C paragraph for test IT-01 for the completed TCF procedure steps.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.5.1.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IT-01.

4.4.5.1.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'IT-01' section.

4.4.5.1.3.2 Significant Problems.

During the first formal test run, ADAS resumed transfer of LDD messages to the ITWSs, but failed to resume sending AWOS OMOs to the ITWSs (refer to PTR OTE-004). DME updated the software and demonstrated during DT&E #2 that ADAS resumed sending AWOS OMOs after re-establishing communications with the ITWSs. However, during the OT&E #2 formal test run, ADAS again failed to resume OMO transfer. With AOS-530 assistance, analysis isolated the software code which induced the error. AOS-530 developed a fix, and provided ACT-320 with an updated software module. ACT-320 testing of the ADAS with the updated module verified correction of the problem, showing ADAS resumes transfer of LDD and OMO messages when communication with the ITWSs is re-established. The AOS-530 fix has been incorporated into the software build to be deployed to the ADAS field sites.

As detailed in PTR OTE-006, the maximum value of the 'Setlog' utility had been altered, but has been restored to its previous value.

4.4.5.1.3.3 PTRs Generated.

See appendix B for complete details of all PTRs generated during OT&E testing. The PTRs generated with respect to OT&E formal test runs of test IT-01 were:

Critical: OTE-004 - CLOSED
Minor: OTE-006 - CLOSED

4.4.5.2 Test IT-02.

The objective of ADAS/ALDARS Regression Test IT-02 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

4.4.5.2.1 Description.

This procedure verified that DLP, ITWS, and WARP output processing assembled and delivered multiple AWOS messages when more than one message was ready for delivery within a 10-second interval. This was accomplished by gradually increasing the number of AWOS simulators responding to the ADAS AWOS poll so that the message traffic increases to a point where two or more messages were ready for delivery in the 10-second interval.

4.4.5.2.2 Data Reduction and Analysis Method.

Test IT-02's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IT-02's TCF are included below in this report. See appendix C paragraph for test IT-02 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.5.2.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IT-02.

4.4.5.2.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'IT-02' section.

4.4.5.2.3.2 Significant Problems.

None

4.4.5.2.3.3 PTRs Generated.

None

4.4.5.3 Test IT-03.

The objective of ADAS/ALDARS Regression Test IT-03 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. The test data gathered during IT-03 formal test runs were also used as supporting data for the verification of ADAS/ALDARS TVRTM requirements ISS2-002, ISS2-003, ISS2-005, and ISS2-006, listed in appendix A, table 10.2-5.

4.4.5.3.1 Description.

This procedure verified that DLP, ITWS, and WARP output processing assembled and delivered multiple variable length AWOS messages when more than one message was ready for delivery within a 10-second interval. This was accomplished by gradually increasing the number of AWOS simulators responding to the poll so that the message traffic increases to a point where two or more variable length messages were ready for delivery in the

10-second interval. Messages were verified to determine if they were delivered unchanged and complete.

4.4.5.3.2 Data Reduction and Analysis Method.

Test IT-03's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IT-03's TCF are included below in this report. See appendix C paragraph for test IT-03 for the completed TCF procedure steps.

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.5.3.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IT-03.

4.4.5.3.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'IT-03' section.

4.4.5.3.3.2 Significant Problems.

None

4.4.5.3.3.3 PTRs Generated.

None

4.4.5.4 Test IT-04.

The objective of ADAS/ALDARS Regression Test IT-04 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

4.4.5.4.1 Description.

This procedure verified the correct processing of error response messages. This was accomplished by increasing the AWOS message traffic to overcome the buffering threshold and having the DLP, the WARP, and the 6 ITWS simulators responding to every other group of 20 messages with an error (despite the validity of the message).

4.4.5.4.2 Data Reduction and Analysis Method.

Test IT-04's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IT-04's TCF are included below in this report. See appendix C paragraph for test IT-04 for the completed TCF procedure steps.

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.5.4.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IT-04.

4.4.5.4.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test IT-04.

4.4.5.4.3.2 Significant Problems.

The IPS sequence files for the WARP and six ITWS simulators, while based on the DLP simulator sequence file, were not recognized by ADAS as error message ADUs.

4.4.5.4.3.3 PTRs Generated.

None

4.4.5.5 Test IT-05 - ITWS Interface.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A). In order to meet this objective, this test used to verify that ADAS communicated with the ITWSs in accordance with(IAW):

a. The service Class 4 of the Transport Layer protocol defined in ISO 8073, and

b. The Transition State (pre-End State) X.25 protocols for the Network Layer, Data Link Layer, and Physical Layer as stated in the NADIN ICD, NAS-IC-25084302.

4.4.5.5.1 Description.

The ADAS was configured to correspond to the IPS. Additionally, the ADAS was configured to geographically cover the continental U.S. This accomplished by accessing the site adaptation data using the ASC. With the ADAS configured in this way, the ITWS simulators received all LDD Flash Messages. This allowed for easier verification that ADAS properly disseminated LDD Flash Messages to ITWS.

The IPS was configured to correspond to the ADAS configuration including the simulation of 20 circuits with 50 AWOS stations. Simulated circuit connectivity spreader over all eight ICCs, with a mixture of DMA and IRQ SW Handling channels. One simulated channel had 10 stations (drops). The other 19 channels had a total of 40 stations. The reason to simulate 50 stations was to simulate an ADAS operational environment. This served to verify that the ADAS SW/HW could properly service, in compliance with established system timing constraints and throughput requirements. Additionally, the IPS was configured to simulate WMSCR, DLP, and WARP.

An LMPA connected in series with the ADAS/NLDN Monitor port. The LMPA data captured were examined to verify that ADAS properly received "live" LDD data messages from the NLDN.

4.4.5.5.2 Data Reduction and Analysis Method.

The data file on the PC1 that captured IPS data contained the following:

a. HEX display printouts for ITWS1 AWOS and ITWS1 LDD.
b. ITWS(1-6) LDD file : iIT-05A.I(1-6)LD
   ITWS(1-6) AWOS file: iIT-05A.I(1-6)AW
   AWOS MESSAGES file: oIT-05A.AWOS

The data file on the PC2 that captured ADAS data contained the following:

a. The NLDN Communications Datapoint.
   The ITWS1 Communications Datapoint.
   The ITWS2 Communications Datapoint.
   The ITWS3 Communications Datapoint.
   The ITWS4 Communications Datapoint.
   The ITWS5 Communications Datapoint.
   The ITWS6 Communications Datapoint.

b. 05 -- EVENT Log for status of the AWOS/ASOS connection had changed.
   61 -- EVENT Log for status of the ITWS connection had changed.
   62 -- EVENT Log for status of the NLDN connection had changed.

c. The LMPA data captured transferred to the Data Capture PC (PC3) by using Procomm Plus software. The file named is IT-05.lmp.

The IT-05.lmp file were examined to verify that the NLDN properly interfaced with ADAS. Verifications consisted of the ADAS SW/HW which properly accepted and interpreted the NLDN data stream with the characteristics: serial, asynchronous, 1200-baud rate, 8 data bits, 1 stop bit, and no parity.

The HEX printouts were used to verify that ADAS/ITWSs properly received valid LDD input messages:

1. ADU maximum size did not exceed 4096 bytes per ADU,
2. The single ADU contained only LDD data,
3. The ADU WMO (envelope head, abbreviated heading and tail) containing only LDD data was properly formatted and fields were correct,
4. The single ADU contained only AWOS data,
5. The ADU WMO (envelope head, abbreviated heading and tail) containing only AWOS data was properly formatted and fields were correct.

The test data in the IT-05.lmp file and the ITWS(1-6) LDD (IML)file were examined to verify that the LDD bound for ITWS moved through the ADAS within 5 seconds.

The test data in the AWOS Messages out file and the ITWS(1-6) AWOS (IML) file were examined to verify that the OMO bound for six ITWSs moved through ADAS.

Reviewed the ADAS Event Log for events pertinent to this test, particularly Event Types (05, 61, 62).

Reviewed the Communications Datapoint obtained from the ADAS SI to verify that the NLDN and the ITWSs properly interfaced with ADAS.

For this test, seven out of seven Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.5.5.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IT-05.

4.4.5.5.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C paragraph associated with test IT-05.

4.4.5.5.3.2 Significant Problems.

During formal test runs, the IT-05 test found a problem similar to the one identified in ADAS/Mods Site Issue Report #3 (refer to ADAS/ALDARS Test PT-12), and resulted in the generation of PTR OTE-016. The problem is associating ITWS Site Ids, the correct ITWS in the "Display ITWS Communications Characteristics" screen. The ADAS VDD for build 4.19 indicated that correction of this problem has been deferred to the ADAS Year 2000 (Y2K) Contract.

4.4.5.5.3.3 PTRs Generated.

See appendix B for complete PTR details. The PTRs generated with respect to this test are:

Moderate PTR(s): OTE-016 - OPEN.

4.4.5.6 Test IT-06.

The objective of ADAS/ALDARS Regression Test IT-06 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that ADAS established a communications link with the ITWS when it became active, even though it was not active when the ADAS application initialized at startup.

4.4.5.6.1 Description.

The IPS test started with the ITWS simulators disabled. The ADAS system started and during the initialization phase detected ITWSs were unavailable. ADAS continued to the Operational State, running in Reduced Mode. The MPS requested the RMS Master System Mode Data Point. The IPS then enabled the ITWS simulators, ADAS detected the ITWS availability, established communications with all six ITWSs, and switched to System Mode "Full." The IPS then prompted the operator to login, request a report for event type 1, logout, then acknowledge the IPS prompt. When the prompt was acknowledged, the IPS terminated the test.

4.4.5.6.2 Data Reduction and Analysis Method.

Test IT-06's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from IT-06's TCF

are included below in this report. See appendix C paragraph for test IT-06 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.5.6.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test IT-06.

4.4.5.6.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, IT-06 section.

4.4.5.6.3.2 Significant Problems.

None

4.4.5.6.3.3 PTRs Generated.

None

4.4.6 Category MP - Maintenance Processing Tests.

Testing of ADAS's RMS was performed by the MPS group, ACT-330. Refer to the MPS group's test report, included as appendix D to this report.

4.4.7 Category OP - Operational Tests.

4.4.7.1 Test OP-01.

The objective of ADAS/ALDARS Regression Test OP-01 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified ADAS: successfully achieved an uninterrupted startup; successfully achieved a graceful shut down; provided SI control during the initialization state; generated entries in the System Event log recording SI shut down request; and, shuts down without logging any event type 42 (CSC Error).

4.4.7.1.1 Description.

The ADAS system proceeded from the shut down state, to the operational state, without operator intervention. After ADAS sent a system update to the MPS, the shut down command was

issued. The ADAS was restarted and the test operator accessed the SI while ADAS was in the initialization state. The operator altered several of the Adaptation Parameters and issued the Continue ADAS. The operator was prompted for the type of start mode, selected the cold start mode, confirmed the selection, and proceeded to the operational state. After ADAS sent a system update to the MPS, operator shut down the ADAS using the SI.

4.4.7.1.2 Data Reduction and Analysis Method.

Test OP-01's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-01's TCF are included below in this report. See appendix C paragraph for test OP-01 for the completed TCF procedure steps.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.1.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-01.

4.4.7.1.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-01' section.

4.4.7.1.3.2 Significant Problems.

As detailed in PTR OTE-011, during OT&E #1 formal test runs, if an IPS test is simulating live interfaces, the ADAS would lock up when a graceful shut down was requested. IPS status messages at the IPS Unix Console (IUC) indicated the ITWS interfaces were not being terminated. DME analysis determined the new ITWS communication processes had not been added to a table accessed by ADAS during shut down processing. During OT&E #2 formal test runs, the ADAS gracefully shut down upon request under all conditions.

4.4.7.1.3.3 PTRs Generated.

See appendix B for complete details of all PTRs generated during OT&E testing. The PTRs generated with respect to OT&E formal test runs of test IN-01 were:

Critical: OTE-011 - CLOSED

4.4.7.2 Test OP-02.

The objective of ADAS/ALDARS Regression Test OP-02 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that the ADAS system automatically restarted and used previously stored maintenance and weather threshold data when it was available. The following functionality was demonstrated by this test: the "startup" datapoint indicates a warm start overall; the METAR generation datapoint indicates all Specials that were generated; and the METAR message arriving at WMSCR after the warm start contains the thunderstorm begin additive data.

4.4.7.2.1 Description.

ADAS was allowed to run normally for two mission cycles, generating a known data store, and then a critical communications task (Communications Control - CCN) was intentionally terminated, causing ADAS to automatically shut down and restart. ADAS restarted, using the stored threshold and checkpoint data, and returned to the operational state.

4.4.7.2.2 Data Reduction and Analysis Method.

Test OP-02's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-02's TCF are included below in this report. (See appendix C paragraph for test OP-02 for the completed TCF procedure steps.)

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.2.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-02.

4.4.7.2.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-02' section.

4.4.7.2.3.2 Significant Problems.

None

4.4.7.2.3.3 PTRs Generated.

None

4.4.7.3 Test OP-03.

The objective of ADAS/ALDARS Regression Test OP-03 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that the ADAS system automatically restarted when previously stored maintenance and weather threshold data was unavailable. This functionality test verified: the initialization mode datapoint indicates an overall Cold Start occurred; the METAR special generation datapoint indicates only the number of METAR specials generated after the restart; the METAR messages arriving at the WMSCR simulator after the restart do not contain the thunderstorm begin additive data.

4.4.7.3.1 Description.

ADAS generated a known data store before: a critical communications task (Communications Control - CCN) was intentionally terminated, causing ADAS to shut down; and both weather and maintenance checkpoint data stores were removed. ADAS restarted without the checkpoint data and continued to the operational state. After a METAR Special was generated, datapoint information was retrieved.

4.4.7.3.2 Data Reduction and Analysis Method.

Test OP-03's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-03's TCF are included below in this report. See appendix C paragraph for test OP-03 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.3.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-03.

4.4.7.3.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-03' section.

4.4.7.3.3.2 Significant Problems.

None

4.4.7.3.3.3 PTRs Generated.

None

4.4.7.4 Test OP-04.

The objective of ADAS/ALDARS Regression Test OP-04 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that the ADAS system automatically restarts without previously stored weather threshold data. This test verified: the initialization mode datapoint indicates a Maintenance Warm Start occurred; the METAR special generation datapoint indicates METAR specials generated before and after the restart; and the METAR messages arriving at the WMSCR simulator after the shut down do not indicate that a thunderstorm begin was encoded.

4.4.7.4.1 Description.

ADAS was brought to the Operational state. ADAS received a thunderstorm begin AWOS message to produce an increment in at least one Software Data Point and processing of additive weather data. A critical communications task (Communications Control - CCN) was intentionally terminated, causing ADAS to shut down, and the weather checkpoint data store was removed. ADAS then restarted without the weather threshold data. ADAS then continued to the operational state. After another METAR Special was generated, the datapoint information was retrieved.

4.4.7.4.2 Data Reduction and Analysis Method.

Test OP-04's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-04's TCF are included below in this report. See appendix C paragraph for test OP-04 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.4.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-04.

4.4.7.4.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-04' section.

4.4.7.4.3.2 Significant Problems.

None

4.4.7.4.3.3 PTRs Generated.

None

4.4.7.5 Test OP-05.

The objective of ADAS/ALDARS Regression Test OP-05 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that the ADAS system automatically restarted without previously stored maintenance threshold data. This test verified: the initialization mode datapoint indicates a Weather Warm Start occurred; the Metar specials generation datapoint indicates that two METAR specials were generated; METAR messages arriving at the WMSCR simulator after the restart encode a thunderstorm begin.

4.4.7.5.1 Description.

ADAS was brought to the Operational state. ADAS received a thunderstorm begin AWOS message to produce an increment in the software datapoint and the processing of additive weather data. A critical communications task (CCN) was intentionally terminated, causing ADAS to shut down, and the maintenance checkpoint data store was removed. ADAS restarted without the maintenance threshold data. ADAS continued to the operational state, another METAR Special was generated, and datapoint information was retrieved.

4.4.7.5.2 Data Reduction and Analysis Method.

Test OP-05's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-05's TCF

are included below in this report. See appendix C paragraph for test OP-05 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.5.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-05.

4.4.7.5.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-05' section.

4.4.7.5.3.2 Significant Problems.

None

4.4.7.5.3.3 PTRs Generated.

None

4.4.7.6 Test OP-06.

The objective of ADAS/ALDARS Regression Test OP-06 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that the ADAS system could be manually restarted using previously stored threshold data. The test verified: the initialization mode datapoint indicates an Overall Warm Start occurred; the METAR special generation datapoint indicates all METAR specials generated before and after the restart; METAR messages arriving at the WMSCR simulator after the restart encoded a thunderstorm begin.

4.4.7.6.1 Description.

ADAS received a thunderstorm begin AWOS message to produce an increment in at least one Software Data Point and processing of additive weather data and then the ASC was used to gracefully shut down ADAS. ADAS was restarted, and the test operator logged in during the initialization state and issued a warm start request to continue to the operational state. After the warm start, the AWOS station sent another message to trigger ADAS generation of a METAR special. Verification was verified by

examination of the initialization datapoint and generated Speci from before and after the restart.

4.4.7.6.2 Data Reduction and Analysis Method.

Test OP-06's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-06's TCF are included below in this report. See appendix C paragraph for test OP-06 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.6.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-06.

4.4.7.6.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-06' section.

4.4.7.6.3.2 Significant Problems.

None

4.4.7.6.3.3 PTRs Generated.

None

4.4.7.7 Test OP-07.

The objective of ADAS/ALDARS Regression Test OP-07 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that the ADAS system could be manually restarted without using previously stored threshold data. The test verified: the initialization mode datapoint indicates an Overall Cold Start occurred; the METAR special generation datapoint indicates only METAR specials generated after the restart; METAR messages arriving at the WMSCR simulator after the restart do not encode a thunderstorm begin.

4.4.7.7.1 Description.

ADAS received a thunderstorm begin AWOS message to produce an increment in at least one Software Data Point and processing of additive weather data, and then the ASC was used to gracefully shut down ADAS. ADAS was restarted, the test operator logged in during the initialization state and issued a request to proceed with a cold start. After the cold start, the AWOS station sent a message to trigger ADAS generation an METAR special when processed by ADAS. Verification was verified by examination of the initialization datapoint and generated Speci from before and after the restart.

4.4.7.7.2 Data Reduction and Analysis Method.

Test OP-07's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-07's TCF are included below in this report. See appendix C paragraph for test OP-07 for the completed TCF procedure steps.

For this test, five out of five Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.7.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-07.

4.4.7.7.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-07' section.

4.4.7.7.3.2 Significant Problems.

None

4.4.7.7.3.3 PTRs Generated.

None

4.4.7.8 Test OP-08.

The objective of ADAS/ALDARS Regression Test OP-08 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that the ADAS

system could be manually restarted using previously stored Maintenance threshold data. The test verified: the initialization mode datapoint indicates a Maintenance Warm Start occurred; the METAR special generation datapoint indicates all METAR specials generated before and after the restart; METAR messages arriving at the WMSCR simulator after the restart does not encode a thunderstorm begin.

4.4.7.8.1 Description.

ADAS received a thunderstorm begin AWOS message to produce an increment in at least one Software Data Point and processing of additive weather data and then the ASC was used to gracefully shut down ADAS. ADAS was restarted, and the test operator logged in during the initialization state and issued a maintenance warm start request to continue to the operational state. After the Maintenance Warm Start, the AWOS station sent another message to trigger ADAS generation of a METAR special. Verification was verified by examination of the initialization datapoint and generated Speci from before and after the restart.

4.4.7.8.2 Data Reduction and Analysis Method.

Test OP-08's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-08's TCF are included below in this report. See appendix C paragraph for test OP-08 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.8.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-08.

4.4.7.8.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-08' section.

4.4.7.8.3.2 Significant Problems.

None

4.4.7.8.3.3 PTRs Generated.

None

4.4.7.9 Test OP-09.

The objective of ADAS/ALDARS Regression Test OP-09 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that the ADAS system could be manually restarted using previously stored threshold data. The test verified: the initialization mode datapoint indicates a Weather Warm Start occurred; the METAR special generation datapoint indicates only METAR specials generated after the restart; and METAR messages arriving at the WMSCR simulator after the restart encoded a thunderstorm begin.

4.4.7.9.1 Description.

ADAS received a thunderstorm begin AWOS message to produce an increment in at least one Software Data Point and processing of additive weather data and then the ASC was used to gracefully shut down ADAS. ADAS was restarted, and the test operator logged in during the initialization state and issued a weather warm start request to continue to the operational state. After the Weather Warm Start, the AWOS station sent another message to trigger ADAS generation of a METAR special. Verification was verified by examination of the initialization datapoint and generated Speci from before and after the restart.

4.4.7.9.2 Data Reduction and Analysis Method.

Test OP-09's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-09's TCF are included below in this report. See appendix C paragraph for test OP-09 for the completed TCF procedure steps.

For this test, four out of four Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.9.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-09.

4.4.7.9.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-09' section.

4.4.7.9.3.2 Significant Problems.

None

4.4.7.9.3.3 PTRs Generated.

None

4.4.7.10 Tests OP-10 and OP-11 - ASC Display Test.

The objective of the ADAS/ALDARS Regression Tests OP-10 and OP-11 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software.

4.4.7.10.1 Description.

Test OP-10 examines every ASC display screen, and associated context-sensitive help screen, for format and content. Test OP-11, a subset of OP-10, was redundant and has been retired.

4.4.7.10.2 Data Reduction and Analysis Method.

Failure seen when displaying any "edit adaptation datapoint threshold" screen.

4.4.7.10.3 Results and Discussion.

4.4.7.10.3.1 Data.

Refer to appendix C for the TCF for test OP-10.

4.4.7.10.3.2 Significant Problems.

Baselining of the ADAS software prior to the ALDARS modifications revealed that the help system displays incorrect context sensitive help screens. The correction of this problem should be incorporated into the ADAS Y2K contract.

4.4.7.10.3.3 PTRs Generated.

See appendix B for complete details of all PTRs generated during OT&E testing. The PTRs generated with respect to OT&E formal test runs of test OP-10 were:

Moderate: OTE-045 - OPEN

4.4.7.11 Test OP-13.

The objective of ADAS/ALDARS Regression Test OP-13 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified: that for the events contained in the ADAS Event log each entry contains the event number, date/time, priority, and description; each of the errors returned by DLP generated an event type 21; a noncritical event priority was indicated; and the event description accurately identified the event.

In addition to operationally testing Event Log processing, this procedure also provided test data for the verification of the correction TSC Site Issue #4, included in the test procedures as test PT-13.

4.4.7.11.1 Description.

This procedure validated the correctness of normal (noncritical) Event log processing. This was achieved by DLP reporting an error each time it received a message from ADAS to trigger the event type 21 entries. At the end of the test, the operator requested an Event Log report for event types 21.

4.4.7.11.2 Data Reduction and Analysis Method.

Test OP-13's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-13's TCF are included below in this report. See appendix C paragraph for test OP-13 for the completed TCF procedure steps.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.11.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-13.

4.4.7.11.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-13' section.

4.4.7.11.3.2 Significant Problems.

The ADAS did not generate any events of type 49 to indicate the generation of Metar SPECI messages. This modification was incorporated by DME at the direction of the ADAS Program Office. The ADAS Specification, FAA-E-2804, states in paragraph 3.1.4.3.1.1 that all significant ADAS system events shall be recorded in the system event log. ADAS generation of Metar format messages for AWOS sites is one of ADAS's most significant functions, and it is ACT-320's opinion that AWOS message triggering of Metar message generation is a significant event and should be recorded in the system event log.

4.4.7.11.3.3 PTRs Generated.

See appendix B for complete details of all PTRs generated during OT&E testing. The PTRs generated with respect to OT&E formal test runs of test OP-13 were:

Moderate: OTE-014 - Open

4.4.7.12 Test OP-14.

The objective of ADAS/ALDARS Regression Test OP-14 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test validates the correctness of extraordinary event log processing. This test verified: that the ADAS Event log indicates CTS time shift events, AWOS error response events, and WMSCR communications status change events; that each event indicates its priority; and that the descriptions accurately describe the event.

4.4.7.12.1 Description.

Verification was achieved by shifting the CTS time signal forward by 5 minutes, reporting AWOS ADU errors to ADAS, and disabling the WMSCR simulator for a period of 30 seconds. The IPS then prompted the user to report related ADAS Event Log entries.

4.4.7.12.2 Data Reduction and Analysis Method.

Test OP-14's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-14's TCF are included below in this report. See appendix C paragraph for test OP-14 for the completed TCF procedure steps.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.12.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-14.

4.4.7.12.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-14' section.

4.4.7.12.3.2 Significant Problems.

The ADAS System Specification states in paragraph 3.1.4.3.1.3 that all significant events are to be recorded by the system event logging function. As ADAS generation of Metar format messages for AWOS sites is one of ADAS's primary functions, ACT-320 believes the generation of Metar messages are significant events and should trigger the generation of event type 49 events. ACT-320 recommends further discussion between AUA-430, AOS-530, and ACT-320 to resolve the event type 49 issue.

4.4.7.12.3.3 PTRs Generated.

See appendix B for complete details of all PTRs generated during OT&E testing. The PTRs generated with respect to OT&E formal test runs of test OP-14 were:

Moderate: OTE-014 - Open

4.4.7.13 Test OP-15.

The objective of ADAS/ALDARS Regression Test OP-15 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified operation of the datapoint alarm (& alert) on (& off) and reset commands. The test verified: datapoints with altered thresholds and disabled Alarm/Alert did not report an Alarm/Alert to the ASC; datapoints with altered thresholds and re-enabled Alarm/Alert did report an Alarm/Alert to the ASC; the counter style datapoints in Alarm or Alert, when reset, reported a Return-to-Normal to the MPS simulator; and the reset initialized the date/time register properly.

4.4.7.13.1 Description.

Verification was achieved by having the DLP, WARP, MPS, and AWOS #1 simulators return errors during the first two mission cycles. MPS and AWOS #2 made erroneous requests during the first two mission cycles. The test operator disabled several datapoints

alarms/alerts and changed their thresholds to values that were less than the number of errors induced for the respective datapoint. Three of the disabled datapoints were enabled. The datapoints were reset, some individually, the rest collectively. The past/present value and date/time registers were checked for proper recording of the data.

4.4.7.13.2 Data Reduction and Analysis Method.

Test OP-15's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-15's TCF are included below in this report. See appendix C paragraph for test OP-15 for the completed TCF procedure steps.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.13.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-15.

4.4.7.13.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-15' section.

4.4.7.13.3.2 Significant Problems.

None

4.4.7.13.3.3 PTRs Generated.

None

4.4.7.14 Test OP-16.

The objective of ADAS/ALDARS Regression Test OP-16 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified that ADAS performed checkpoint processing, for support of recovery of mission data, up to the point of the previous completed mission cycle. This test verified: the ADAS Event log indicates the completion of mission cycle phases (mission, completion archival, completion maintenance, completion checkpoint, and idle); and

METAR reports sent to the WMSCR simulator indicate data only from completed cycles.

4.4.7.14.1 Description.

Verification was achieved by removing the ADAS checkpoint data and starting ADAS. The AWOS simulators alternately responded with messages indicating rain had started or stopped. The Test Operator logged on to the AUC and initiate the command to kill the ADAS Control process. The CTS simulator waited 2 minutes, then shifted the time ahead to 57 minutes after the hour. An AWOS simulator waited for a flag from the WMSCR simulator indicating that it had received the hourly METAR report. The AWOS simulator then waited until 1 second after the second ADAS poll before prompting the test operator to trigger the killing of the ADAS Control process. This kill procedure was repeated twice, waiting 5 and 10 seconds after the poll before prompting the operator.

4.4.7.14.2 Data Reduction and Analysis Method.

Test OP-16's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-16's TCF are included below in this report. See appendix C paragraph for test OP-16 for the completed TCF procedure steps.

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.14.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-16.

4.4.7.14.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in the appendix C, 'OP-16' section.

4.4.7.14.3.2 Significant Problems.

None

4.4.7.14.3.3 PTRs Generated.

None

4.4.7.15 Test OP-17.

The objective of ADAS/ALDARS Regression Test OP-17 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified the ASC display responds within the required time limits.

4.4.7.15.1 Description.

Verification was achieved by requesting thirty screens of data, using a stopwatch to measure the response time.

4.4.7.15.2 Data Reduction and Analysis Method.

Test OP-17's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-17's TCF are included below in this report. See appendix C paragraph for test OP-17 for the completed TCF procedure steps.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.15.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-17.

4.4.7.15.3.1 Data.

Step:	#9	#10	#11	#12	#13	#14	
PASS 1	.73	.73	.81	.44	.53	2.07	
PASS 2	.64	.63	.62	.45	.73	1.82	
PASS 3	.57	.66	.39	.63	.97	1.94	
PASS 4	.48	.57	.56	.51	.77	1.72	
PASS 5	.40	.57	.57	.57	.73	1.97	
TOTALS	2.82	3.16	2.95	2.60	3.73	9.52	=> 24.78 /30 = .826
				24.78 -		2.07	=> 22.71 /29 = .783

4.4.7.15.3.2 Significant Problems.

None

4.4.7.15.3.3 PTRs Generated.

None

4.4.7.16 Test OP-18.

The objective of ADAS/ALDARS Regression Test OP-18 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test verified ASC intrusive updates occur after completion of the mission phase of the mission cycle.

4.4.7.16.1 Description.

Verification was achieved by timing the response time of an Update Control Adaptation Parameter Requests from every 5-second mark within the mission cycle.

4.4.7.16.2 Data Reduction and Analysis Method.

Test OP-18's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from OP-18's TCF are included below in this report. See appendix C paragraph for test OP-18 for the completed TCF procedure steps.

For this test, seven out of seven Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.7.16.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test OP-18.

4.4.7.16.3.1 Data.

##THIS PROCEDURE WAS REDESIGNED DURING FORMAL OT&E TESTING!##

It has been shown that this test is flawed in its current form, in that the point in the mission cycle when commands are entered determines the response time. As the test operator becomes more efficient, the response times tend to increase, eventually causing the test to fail. Analysis shows that Intrusive Updates are processed only during the checkpoint phase of the mission cycle (nominally 15-40 seconds into the mission cycle), thereby given the operator arbitrary control over the test outcome. This procedure will no longer test the response time, but instead now demonstrates the response time from each 5-second mark within the mission cycle to show that the intrusive updates are only done after the mission phase, but prior to the idle phase, of the

mission cycle. The following data was collected during this test's OT&E Formal Test Run:

5-Second Mark	0	5	10	15	20	25
Response Time	17.52	13.40	11.24	3.15	0.83	0.73

5-Second Mark	30	35	40	45	50	55
Response Time	0.8	0.64	0.67	33.53	30.88	23.38

This TCF will be updated to reflect the redesign prior to incorporation into the Post-ALDARS OT&E ADAS Regression Test Procedures.

4.4.7.16.3.2 Significant Problems.

None

4.4.7.16.3.3 PTRs Generated.

None

4.4.8 Category PT - ADAS Mods PTRs and Site Issues.

4.4.8.1 ADAS/ALDARS PT Test IDs.

This section references the procedures that address the ADAS Modifications Contract (ADAS/Mods) PTRs and Site Incident Reports (SIRs) included in the ADAS/ALDARS Contract SOW and Contract Modifications. The ADAS/Mods PTRs were generated at the ADAS PSF at the FAA Technical Center at the Atlantic City International Airport. The ADAS/Mods SIRs were generated at the Boston ARTCC in Nashua, NH. The ADAS/Mods PTRs and SIRs were assigned ADAS/ALDARS OT&E test IDs PT-01 through PT-15. The following paragraphs describe each of the nine PTRs and six SIRs, analysis of relevant data, and ACT-320's recommended disposition of each issue.

4.4.8.1.1 PT-01 - M-0028 - Wind Speed Encoding Error.

PROBLEM: Test C1 attempted to test the wind speed encoding in an SP SAO. First, a 20-knot wind speed was to be reported, and then a 105-knot wind speed was to be reported. The 20-knot wind speed was correctly reported, but the 105-knot wind speed was not. ADAS should add 50 to the direction for speeds over 99-knots. ADAS incorrectly encoded "0550G12." ADAS should have encoded "5505G12."

SOLUTION: New Metar encoding algorithm.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D20-27 provided the data required for analysis.

DR&A RESULTS: The analysis of D20-27 formal test run data indicates the wind speed is encoded in accordance with the ADAS/AWOS ICD appendix IX - Aviation Routine Weather Report (METAR) Format Weather Messages.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.2 PT-02 - PTR-77 - Cycle Overrun and Related Issues.

PROBLEM: Two consecutive mission cycle overruns cause the ADAS application to shut down and auto-restart.

SOLUTION: DME proposed that incrementing the mission cycle overrun counter from 2 to 4 should alleviate the problem. DT&E and OT&E testing could not recreate this problem, this PTR is considered closed.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D75-01 provided the data required for analysis.

DR&A RESULTS: The analysis of D75-01 formal test run data indicates ADAS does not shut down and restart after three consecutive mission cycles are overrun.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.3 PT-03 - M-0029 - 3-Hour Pressure Tendency Not Encoded.

PROBLEM: ADAS fails to encode the 3-Hour pressure tendency if a 6-Hour precipitation is encoded.

SOLUTION: New METAR encoding algorithm.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D20-79 provided the data required for analysis.

DR&A RESULTS: The analysis of D20-79 OT&E formal test run data indicates the 3-Hour pressure tendency is encoded in accordance with the ADAS/AWOS ICD appendix IX - Aviation Routine Weather Report (METAR) Format Weather Messages.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.4 PT-04 - M-0031 - Site ID Mismatch Error.

PROBLEM: The final analysis of this problem revealed the ADAS testbed utility for generating adaptation database failed to pad AWOS site IDs with spaces when the IDs were less than four characters in length. The ADAS extracted four character site IDs from incoming messages to compare to the expected site IDs from the ADB. Erroneously comparing strings of unequal length is an invalid operation not anticipated by ADAS, whose design inherently expects all site IDs to be four characters long.

SOLUTION: The ADAS application and utilities no longer generate a site ID less than four characters in length.

VERIFICATION: ADAS/ALDARS OT&E formal test run of ST-02 provided the data required for analysis.

DR&A RESULTS: The ADAS application program and utilities prevent the condition which enabled the error to occur.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.5 PT-05 - M-0035 - 0 & 100 Degree Temp. Encoding Error.

PROBLEM: During the 29th hour of test D3 (now ME-14) at 0000 (0 hundred hours) ADAS reported the max temp for the last 12 hours and min temp for the last 18 hours. The values to be encoded were 0 deg max and -40 deg min and should have been encoded as '40060', but ADAS encoded '410060'. NOTE 1: 100 is added to temps below 0 or subtracted from temps over 99. So encoded temps are always 2 bytes (2 digits, no sign). NOTE 2: Format is 4TxTxTnTn, where Tx is max temp and Tn is min temp. Further tests revealed that the error occurs at both 0 and 100 degrees. i.e. When the simulator was set to either 0 or 100 degrees the result was encoded as 100. This is in violation of the format requirement which states that only 2 characters be encoded. This test was run as part of Test D3.

SOLUTION: New METAR encoding algorithm.

DR&A RESULTS: The OT&E formal test run data from D20-76 verified the temperature is encoded in accordance with the ADAS/AWOS ICD appendix IX - Aviation Routine Weather Report (METAR) Format Weather Messages.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.6 PT-06 - M-0036 - 100 Knot Gust Encoding Error.

PROBLEM: It was observed in the results of test C7_line (as well as in the original test during DT&E, test C004) that the gust of 100 knots in the AWOS Std message is not encode properly. The SAO generated message contained "G00" and it should have been "G100".

SOLUTION: New METAR encoding algorithm.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D20-27 provided the data required for analysis.

DR&A RESULTS: The OT&E formal test run data verifies proper encodes wind gust is encoded in accordance with the ADAS/AWOS ICD appendix IX - Aviation Routine Weather Report (METAR) Format Weather Messages.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.7 PT-07 - M-0040 - SAO Visibility Encoding Error.

PROBLEM: An IPS Test Sequence, Test D3_PTR (now ME-14), provided messages to ADAS where the 2 and 3 mile visibility thresholds were crossed (ie. 1.75 -> 2.25, 2.75 -> 3.25, 3.25 -> 2.75). The expected SP's were generated by ADAS at the correct time, but the visibility value in the SAO message was "M" (meaning Missing), not the appropriate numerical value. This PTR was first discovered during previous OT&E at which time it was called PTR OTE-065. It seems, after some investigating, that CPE never received this PTR. ACW checked PTR documentation sent by CPE and found that they had incorrectly identified PTR OTE-065. As a result the problem described above was not corrected. PTR OTE-065 has been closed and this PTR, M-0040, has been opened.

SOLUTION: New METAR format encoding algorithm.

VERIFICATION: ADAS/ALDARS OT&E formal test run of D20-30 provided the data required for analysis.

DR&A RESULTS: The OT&E formal test run data verified the Metar Visibility Field is encoded in accordance with the

ADAS/AWOS ICD appendix IX - Aviation Routine Weather Report (METAR) Format Weather Messages.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.8 PT-08 - M-0042 - Other Remarks, Present Weather Section Not Indicated.

PROBLEM: In C16_OBS, simulator #4 generated conditions of drizzle and undetermined precipitation. They were correctly reported in the Present Weather field of the SAO message, but in the OTHER REMARKS, PRESENT WEATHER section the end of drizzle (LExx) and beginning of undetermined precipitation (PBxx) was not indicated. LBxx and PExx were correctly reported. Similar problems also occurred for simulators #2 and #3 regarding ZLExx. ZLBxx was reported but never ZLExx, despite the fact that ZL (in the Present Weather field) began and ended. 09/28/95 - While regression tests were being updated and organized additional information for this PTR was acquired. Test 5301-1 was run and it was discovered that for the OTHER REMARKS, PRESENT WEATHER section there were 10 additional types that were not being reported correctly (TE, RE, ZRE, ZLB, IPB, IPE, SB, SE, AB, and AE).

SOLUTION: New METAR encoding algorithm.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D20-61 provided the data required for analysis.

DR&A RESULTS: The OT&E formal test run data verified the Metar visibility field is encoded in accordance with the ADAS/AWOS ICD appendix IX - Aviation Routine Weather Report (METAR) Format Weather Messages.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.9 PT-09 - M-0043 - Dewpoint Temperature ICD Violation.

PROBLEM: The ADAS encodes the dewpoint sensor as missing when the ambient temperature sensor is reported as missing.

SOLUTION: This PTR is closed due to an update of the ADAS/AWOS ICD. The ICD was changed to reflect the behavior exhibited by ADAS.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D20-42

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D20-42 provided the data required for analysis.

DR&A RESULTS: The OT&E formal test run data verified the dew point temperature is encoded in accordance with the ADAS/AWOS ICD appendix IX - Aviation Routine Weather Report (METAR) Format Weather Messages.

OT&E RECOMMENDATION: PTR CLOSED - Described problem no longer exists.

4.4.8.1.10 PT-10 - SI-01 - Configured Sites Report "CFG-NOT".

PROBLEM: The Specialist Interface AWOS STATION LU DATAPOINT screen (figure 3-68 of the Software User Manual (SUM)) displays a CONNECTION STATUS data point value of "CFG-NOT" for the Fitchburg ASOS site, FIT. However, this site was configured properly, communications was established, and both AWOS Format Weather Messages and SAO messages were received from Fitchburg. Moreover, during successful communications transmission with Fitchburg, all other datapoints associated with the AWOS STATION LU DATAPOINT screen, such as FRAMES TRANSMITTED and FRAMES DELIVERED, were not updated; this additional problem may however prove to be a natural consequence of the maintenance processor's mistaken belief that the station is not configured. The anomaly is reported as critical because reporting the correct connection and communication data point values of the AWOS stations assists immeasurably in debugging the AWOS and ASOS communication paths. It is worthwhile to note that when the ADAS tape arrived, a dummy AWOS station, called "R001", was configured on Channel 1 of Controller 1. This AWOS site displays the correct connection status data point value of "CFG-FAILED" for an invalid AWOS site. When the ADAS polling message output is looped back via the LSI modem to the input of Channel 1 of Controller 1 and the R001 station is placed "IN-SERVICE", the LINK RESET COUNT and LINK DISCONN COUNT data point values are incremented as expected. Additional live testing and checking of the ADAS source will be necessary to suggest an alternative or even to eliminate operator error.

SOLUTION: DME's evaluation revealed a cross-reference discrepancy between the MP and CHD software modules.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of IN-12D provided the data required for analysis.

DR&A RESULTS: The OT&E formal test run data verified the correction of the problem.

OT&E RECOMMENDATION: CLOSE Site Issue - Described problem no longer exists.

4.4.8.1.11 PT-11 - SI-02 - Only AWOS Station 1 in RMS Master Can Be Edited.

PROBLEM: Paragraph 3.4.2.2.16.3 of the ADAS Software User's Manual describes the process of editing the RMS Master/AWOS Stations Datapoint Thresholds. When this process was tried for the AWOS and ASOS stations that were configured for Boston, the software only allowed changes to AWOS STATION 1. For AWOS STATION 2 through 137, the following message was displayed: >> DATAPOINT DOES NOT HAVE THRESHOLDS! ENTER -1 FOR UNDEFINED. Any attempt to edit these thresholds was met with the INVALID ENTRY! message. As of this writing, there is reason to believe that CommPower deliberately made the software work this way, i.e. that only one set of thresholds should be defined for all 137 of these AWOS datapoints; the ADAS source code should be investigated further.

SOLUTION: The site issue describes functionality inherent to the current system design. Changing this functionality will require a change to the ADAS System Specification (FAA-E-2804).

VERIFICATION: The ADAS/ALDARS OT&E formal test run of IN-12D provided the data required for analysis.

DR&A RESULTS: The following SI screen print captures demonstrate that only the 1st AWOS Station's Datapoint Thresholds can be edited. This is inherent to the application's design, not a symptom of a problem. All AWOS/ASOS Stations use the Thresholds of the first AWOS Station.

```
.......................................................................
. 11-12-97 00:02:53 . Events:    9 . Responses:    0 .   ADAPTATION CMDS   .
.......................................................................
                 EDIT RMS MASTER/STATIONS LU DATAPOINT THRESHOLDS
                      SITE DP                  ALERT     ALARM
   DATAPOINT NAME  ID   ID   VALUE        CURR PAST CURR PAST   LAST RESET

AWOS STATION 1:  K01   12 NORMAL                          11-11-97 23:31:17
AWOS STATION 2:  K002  13 NORMAL                          11-11-97 23:31:17
AWOS STATION 3:  K003  14 NORMAL                          11-11-97 23:31:17
AWOS STATION 4:  K004  15 NORMAL                          11-11-97 23:31:17
AWOS STATION 5:  K005  16 NORMAL                          11-11-97 23:31:17

              ALERT THRESHOLDS                      ALARM THRESHOLDS
      UPPER          LOWER        ENAB        UPPER        LOWER       ENAB
        5              4          YES           3            2         YES
         > ENTER LOWER THRESHOLD (0 TO 65535), -1 FOR UNDEFINED
   PRESS ARROW KEYS TO POSITION; PRESS RETURN KEY ON LAST FIELD TO ESCAPE
```

```
. 11-12-97  00:03:02  . Events:    9 . Responses:    0 .   ADAPTATION CMDS   .
..............................................................................
                    EDIT RMS MASTER/STATIONS LU DATAPOINT THRESHOLDS
                          SITE DP                  ALERT      ALARM
   DATAPOINT NAME  ID   ID   VALUE         CURR PAST CURR PAST   LAST RESET

 AWOS STATION 1:  K01   12 NORMAL                              11-11-97 23:31:17
 AWOS STATION 2:  K002  13 NORMAL                              11-11-97 23:31:17
 AWOS STATION 3:  K003  14 NORMAL                              11-11-97 23:31:17
 AWOS STATION 4:  K004  15 NORMAL                              11-11-97 23:31:17
 AWOS STATION 5:  K005  16 NORMAL                              11-11-97 23:31:17

                 ALERT THRESHOLDS                        ALARM THRESHOLDS
        UPPER        LOWER        ENAB          UPPER        LOWER        ENAB
          -1           -1          YES            -1           -1          YES
      >> DATAPOINT DOES NOT HAVE THRESHOLDS! ENTER -1 FOR UNDEFINED
   PRESS ARROW KEYS TO POSITION; PRESS RETURN KEY ON LAST FIELD TO ESCAPE
```

OT&E RECOMMENDATION: CLOSE Site Issue - It has been determined that this is by design and not an error of the ADAS program.

4.4.8.1.12 PT-12 - SI-03 - AWOS Station List Association Problem.

PROBLEM: The ADAS maintains a simple list of associated AWOS sites as a set of 137 records. AWOS sites are put into this list simply in the temporal order in which they are entered by the Specialist. However, when the Specialist calls for a display or printout of the AWOS entered so far, the ADAS first sorts its internal AWOS list by Controller and Channel - thus the actual order of the internal list cannot be derived from the display/printout. The problem arises because, in the RMS Maintenance Processor, the RMS Master Logical Unit maintains 137 data points dedicated to the status of each of the 137 AWOS Logical Units - these DPs are not identified other than as "AWOS Station 1", "AWOS Station 2", etc., therefore, the specialist cannot tell which actual site that Station 1, etc., corresponds to. There is no simple workaround for this problem. The ADAS code should be investigated to determine the simplest software change that could fix the problem, presumably an additional capability to list all AWOS in their internal, unsorted order.

SOLUTION: DME incorporated the site ID into data displayed for each station.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of IN-12D provided the data required for analysis.

DR&A RESULTS: The Site ID's are now included in the screen display.

OT&E RECOMMENDATION: CLOSE Site Issue - Described problem no longer exists.

4.4.8.1.13 PT-13 - SI-04 - Unattended Mode Triggers Reduced Mode.

PROBLEM: Switching the Mode Selection switch on the alarm and control panel to 'UNATTENDED' causes ADAS to report 'REDUCED' operational mode. This is the operational setting and ADAS should still be reporting an operational mode of 'FULL'.

SOLUTION: DME needs to correct the reduce mode logic encoding.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of OP-13 provided the data required for analysis.

DR&A RESULTS: UNATTENDED Mode no longer induces a REDUCED Operational Mode.

OT&E RECOMMENDATION: CLOSE Site Issue - Described problem no longer exists.

4.4.8.1.14 PT-14 - SI-05 - SAO Archive/WMSCR 3 Hour Buffer Error.

PROBLEM: When the WMSCR interface is down, the SAO messages from the ASOS sites (which should be sent to the 3 hour buffer) are also appearing in the SAO archive. ASOS generated SAO messages should not be archived by ADAS.

SOLUTION: DME needs to correct the WMSCR buffer code.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D50-01 provided the data required for analysis.

DR&A RESULTS: The OT&E formal test run data verified the archive now contains only ADAS generated Metar format messages.

OT&E RECOMMENDATION: CLOSE Site Issue - Described problem no longer exists.

4.4.8.1.15 PT-15 - SI-06 - ADAS Fails To SEND Error ADU To AWOS Sites.

PROBLEM: ADAS does not send error messages to ASOS or AWOS systems.

SOLUTION: Correction of the software code.

VERIFICATION: The ADAS/ALDARS OT&E formal test run of D10-01 provided the data required for analysis.

DR&A RESULTS: ADAS now sends error messages to AWOS & ASOS sites.

OT&E RECOMMENDATION: CLOSE Site Issue - Described problem no longer exists.

4.4.8.2 Significant Problems.

None

4.4.8.3 PTRs Generated.

None

4.4.8.4 Conclusions.

All PTRs and Site Issues included in the ADAS/ALDARS SOW have been satisfactorily addressed.

4.4.8.5 Recommendations.

ACT-320 has closed the 9 ADAS/Mods OT&E PTRs included in the ADAS/ALDARS SOW. ACT-320 recommends the 6 ADAS/Mods Site Issues included in the ADAS/ALDARS SOW be closed.

4.4.9 Category RA - Reliability and Availability.

4.4.9.1 Test RA-01 - Reliability and Availability.

The objective of this test was to verify particular ALDARS NAS-SS-1000 requirements (see appendix A). In order to meet this Objective, this test used to evaluate the reliability and availability of the ADAS system with the new ALDARS-associated software and hardware installed.

4.4.9.1.1 Description.

The ADAS was configured to correspond to the NLDN interface. This was accomplished by using the ASC to access the ADAS adaptation parameters and by physical connection to its respective NLDN port. Additionally, the ADAS was configured to geographically cover the continental U.S. With the ADAS configured in this way, ADAS received all LDD Flash Messages from the NLDN.

4.4.9.1.2 Data Reduction and Analysis Method.

During the conduct of DT&E at DME's facility, DME Corporation collected the Reliability and Availability (RA) data. The RA data provided to the Technical Center after the DT&E was

completed. The RA data consisted of the measurement of the uptime and the downtime of the ADAS/NLDN. At the Technical Center, ACT-320 collected the RA data during the OT&E. The collected data at the Technical Center and the DME's facility were used for analyzing the RA of the ADAS/ALDARS.

The Availability evaluation was determined by analysis of uptime and downtime data. The Reliability evaluation was measured by the Mean Time Between Failure (MTBF). The analysis was based on a comparison between the RA data from DME and the RA data from the Technical Center. The comparison considered the uptime and the downtime of the system during the conduct of test. The MTBF was determined by using the uptime and the downtime of the system.

For this test, three out of three Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.9.1.3 Results and Discussion.

4.4.9.1.3.1 Data.

MTBF = total number of measured hours/# of failures
MTTR = total # amount of downtime/# of failures
Availability = MTBF/(MTBF+MTTR)

The total of test time = 95 days = 2280 hours
The total of down time = 0 hour
MTTR = 0 hour
Reliability = MTBF = 2280 hours > 2190 hours
Availability = MTBF/(MTBF+MTTR) = 2280/(2280 + 0) = 1 > 0.99973

4.4.9.1.3.2 Significant Problems.

Regression testing of OT&E #1 PTRs:

PTR OTE-001 was closed. OT&E #2 Regression testing of PTR OTE-001 demonstrated the buffer box problem was fixed.

4.4.9.1.3.3 PTRs Generated.

See appendix B for complete PTR details. The PTRs generated with respect to this test are:

Critical PTR(s): OTE-001 - CLOSED.

4.4.10 Category ST - Stress Tests.

4.4.10.1 Test ST-01.

The objective of ADAS/ALDARS Regression Test ST-01 was to verify ADAS functionality was not adversely impacted by the ALDARS

contract modifications to the previously baselined version of the ADAS software. This functionality test stress tested ADAS under nominal conditions, using the defined maximum number of external interfaces and the defined maximum number of lightning strikes.

4.4.10.1.1 Description.

This procedure verified proper processing of AWOS type messages, within each mission cycle, from 25 AWOS and 50 ASOS stations, to eight recipient NADIN users (DLP, six ITWSs, and WARP). The test configuration used 10 AWOS and 10 ASOS-type AWOS simulators to return AWOS messages containing automated remarks, and an additional 10 of each type station to return AWOS messages with operator remarks. The remainder of the AWOS and ASOS type AWOS stations returned standard AWOS messages.

4.4.10.1.2 Data Reduction and Analysis Method.

Test ST-01's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from ST-01's TCF are included below in this report. See appendix C paragraph for test ST-01 for the completed TCF procedure steps.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.10.1.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test ST-01.

4.4.10.1.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in appendix C.

4.4.10.1.3.2 Significant Problems.

This test originally used the individual maximum for each external interface. ADAS was able to complete the mission phase of its mission cycle when configured with 137 AWOS/ASOS stations, 6 ITWSs, and 1 of each other interface. All stations are polled, the weather data is processed, and appropriate messages are queued for output within the 26.2 seconds specified by requirement. The fails to transmit the data queued before the end of the 1-minute mission cycle, triggering a "FAILURE TO COMPLETE MISSION CYCLE IN 60 SECONDS" event. Analysis showed the

NADIN has sufficient bandwidth to transfer the data within the mission cycle. This isolated the problem to the test's design exceeding the IPS resources to simulate individual maximum for each external interface.

To address this problem, the ADAS Program Office defined the maximum configuration of external interfaces for an ADAS operationally integrated into the NAS. The stress tests were redesigned to limit the test configuration to an operational maximum interface configuration of 6 ITWSs, 25 AWOSs, 50 ASOSs, and one each of the remaining external interfaces (CTS, DLP, MPS, NLDN, WARP, and WMSCR), with the NLDN providing 1100 strikes per minute, 700 of which are within the ADAS's operational boundary. The reconfigured tests completed successfully with no mission cycle overruns.

4.4.10.1.3.3 PTRs Generated.

None

4.4.10.2 Test ST-02.

The objective of ADAS/ALDARS Regression Test ST-02 was to verify ADAS functionality was not adversely impacted by the ALDARS contract modifications to the previously baselined version of the ADAS software. This functionality test builds on ST-01 - All Stations Nominal by having the ASOS stations send METAR messages, and the AWOS stations trigger METAR Generation Processing, to increase ADAS's processing load. This test procedure also provided the data for verification of ADAS/ALDARS OT&E TVRTM requirements MSS2-030 through MSS2-033, listed in appendix A, table 10.2-3.

4.4.10.2.1 Description.

This procedure verified proper processing of AWOS and METAR messages from 75 stations. This was achieved by having the AWOS 25 simulators return AWOS messages which will trigger SPECIs, and all of the ASOS type AWOS simulators return both a AWOS format message and a METAR format message.

4.4.10.2.2 Data Reduction and Analysis Method.

Test ST-02's relevant OT&E formal test run data has been incorporated into its TCF and marked with the evaluation criteria cross-reference numbers. The evaluation criteria, modified to past-tense, and the cross-referenced test data from ST-02's TCF are included below in this report. See appendix C paragraph for test ST-02 for the completed TCF procedure steps.

For this test, six out of six Evaluation Criteria passed. The Evaluation Criteria used to determine that this test's requirements were verified are contained in appendix C.

4.4.10.2.3 Results and Discussion.

The following paragraphs: contain cross-reference formal test data; provide details of significant problems encountered during test execution; and list the status of OT&E PTRs generated with respect to test ST-02.

4.4.10.2.3.1 Data.

Due to the volume of the cross-referenced test data, it has not been included in this paragraph. The data has been included in appendix C.

4.4.10.2.3.2 Significant Problems.

See ST-01 significant problems detailed in paragraph 4.4.10.1.3.2 of this report.

4.4.10.2.3.3 PTRs Generated.

None

4.4.11 Category ADD - Additional Tests.

During OT&E there were some tests and analysis performed that were not originally planned and for which no formal test procedures were developed. However, these ad hoc tests generated significant results and, therefore, have been included in the OT&E Final Report.

4.4.11.1 Analysis of OTIS METAR Data.

4.4.11.1.1 Description.

In response to a request from the ADAS Program Office, when the ADAS testbed was not being used for ADAS OT&E, the ADAS was often connected to the OTIS AWOS site to capture the METAR messages ADAS would generate for delivery to WMSCR. This captured data was sent to the ADAS Program Office for analysis.

4.4.11.1.2 Data Reduction and Analysis Method.

During periods when the ADAS testbed was not being used for formal tests, a configuration was loaded to collect data from the OTIS AWOS. The IPS WMSCR data (METARs and SPECIs) were downloaded to PC as an ASCII file and then sent to AUA-430. AUA-430 utilized Engineers and Meteorologists familiar with the METAR format to analyze these data in order to determine if ADAS was generating these messages correctly. Any anomalies were reported to ACT-320 and a PTR was generated.

4.4.11.1.3 Results and Discussion.

The following paragraphs: provide details of significant problems encountered during this analysis and list the status of OT&E PTRs generated with respect to this analysis.

4.4.11.1.3.1 Significant Problems.

a. The xxxNO REMARKS were included in ADAS generated METAR messages but were missing from the SPECIs. The resolution to this problem is that all AWOS A01 type stations will not generate PWINO, FZRNO, or RVRNO remarks. This problem was classified as Moderate, remains open, and will be corrected in the Y2K software build. (Refer to PTR OTE-015.)

b. Erroneous WSHIFT comments were generated in the ADAS generated METAR messages. DME implemented the appropriate software modifications to resolve this problem and the modifications were verified as correct during DT&E #2 and OT&E #2. This problem was classified as Moderate and has been closed. (Refer to PTR OTE-020.)

c. ADAS generated PRESFR/PRESRR Remarks that were erroneous. It was determined during OT&E #1 that the Federal Standard Algorithms implemented were not correct and that the PRESRR and PRESFR should be removed from build 4.19. It was tested during DT&E #2 and OT&E #2 that DME had removed the PRESRR and PRESFR Remarks from the software. AUA-430 continues to investigate how these remarks should be implemented and what algorithms should be used to generate these remarks. It has not been determined if the appropriate algorithms will be identified and implemented for the Y2K build. Further investigation is needed to provide the appropriate resolution to this problem. This problem was classified as Major and remains open. (Refer to PTR OTE-022.)

4.4.11.1.3.2 PTRs Generated.

See appendix B for complete PTR details. The PTRs generated with respect to this test are:

Moderate PTR(s):	OTE-015 - Open
	OTE-019 - Closed
	OTE-020 - Closed
	OTE-023 - Closed
	OTE-024 - Closed
Major PTR(s):	OTE-022 - Open

4.4.11.2 Informal Testing.

During OT&E #2 some problems were reported during informal testing. PTRs were generated and are listed below.

4.4.11.2.1 Significant Problems.

The requirement in ADAS System Spec, FAA-E-2804, section 3.1.4.1.2.1 states that ADAS shall validate the message Format ID/Type and Message Type/Length. The build 4.19 software only validates the Message Type/Length for AWOS type stations--not ASOS type stations. Other paragraphs in the Spec seem to contradict the paragraph identified above. As a result, AUA will correct the contradiction in the spec and DME will be directed to validate ASOS type stations. This problem was classified as Major, remains open, and will be corrected in the Y2K software build. (Refer to PTR OTE-049.)

4.4.11.2.2 PTRs Generated.

See appendix B for complete PTR details. The PTRs generated with respect to this test are:

Moderate PTR(s):	OTE-050 - Closed
	OTE-051 - Closed
Major PTR(s):	OTE-049 - Open

5. OT&E CONCLUSIONS.

ACT-320 provides the following conclusions based on OT&E #1 and OT&E #2:

a. All of the Critical Program Trouble Reports(PTR) generated during OT&E #1 were corrected.

b. Two of the 26 Operational Test and Evaluations (OT&E) #1 PTRs, that were agreed to be fixed for build 4.19, were not fully addressed.

c. No new Critical PTRs were generated during OT&E #2.

d. As a result of OT&E #2, four Major and three Moderate PTRs remain open.

e. As a result of OT&E #1 and OT&E #2, there are a total of 21 open PTRs that remain open and need to be resolved.

f. Remote Monitoring System (RMS) testing was not necessary during OT&E #2 since none of the OT&E #1 PTRs were addressed by build 4.19.

g. The 34 Automated Lightning Detection and Reporting System (ALDARS) related NAS-SS-1000 requirements (volume II and III) were nearly all implemented correctly as indicated by the following: for 82 percent of the requirements, testing fully verified AWOS Data Acquisition System (ADAS) as compliant; for 12

percent of the requirements, testing partially verified ADAS as compliant; and testing indicated 6 percent of the requirements were not valid.

h. The six Integrated Terminal Weather System (ITWS)-related NAS-SS-1000 requirements (volume II) were nearly all implemented correctly as indicated by the following: for 83 percent of the requirements, testing fully verified ADAS as compliant and for 17 percent of the requirements, testing partially verified ADAS as compliant.

i. The 32 METAR-related NAS-SS-1000 requirements (volume II) were all implemented correctly as indicated by the following: for 100 percent of the requirements, testing fully verified ADAS as compliant.

Overall, the ADAS software version 4.19 is robust, and the original ADAS functionality, which tested successfully for versions 4.18 and 4.19, remains intact. All OT&E #1 PTRs designated as Critical were successfully tested and verified as corrected. No new Critical PTRs were generated during OT&E #2. A few Major PTRs remain open, but overall do not present a critical problem.

6. RECOMMENDATIONS.

ACT-320 recommends a positive deployment decision for the AWOS Data Acquisition System(ADAS)/Automated Lightning Detection and Reporting System (ALDARS) software build 4.19. This decision is based on two criteria: (1) there are no outstanding Critical Program Trouble Reports (PTR), and (2) all of the 21 open PTRs appear to be correctable. ACT-320 recommends that the remaining open ADAS software PTRs be corrected in the ADAS/Y2K software build and that the ADAS documentation PTRs be corrected before Y2K Development Test and Evaluation (DT&E) commences. ACT-320 recommends that all corrected software PTRs undergo thorough DT&E and Operational Test and Evaluation (OT&E) to verify that the software modifications have been properly implemented.

7. ACRONYMS AND ABBREVIATIONS.

ACF	Area Control Facilities
ACT-320	Comm/Nav/Surveillance Engineering and Test Division, Weather Branch
ADAS	AWOS Data Acquisition System
ADB	Adaptation Data Base
ALDARS	Automated Lightning Detection and Reporting System
ARP	Airport Reference Point
ARTCC	Air Route Traffic Control Center

ASC	ADAS Specialist Console
ASOS	Automated Surface Observation System
ATC	Air Traffic Control
AWOS	Automated Weather Observation System
bps	bits per second
CCN	Communications Control
CDL	Communications DLP/WARP Processing
CHD	Communications High Level Data Link Control Processing
CIT	Communications ITWS Processing
CMP	Communications Maintenance Processor Subsystem Processing
CONUS	Continental United States
cps	characters per second
CPU	Central Processing Unit
CR	Cross Reference
CSCI	Computer Software Configuration Item
CTM	Communications Transition Modules
CTS	Coded Time Source
CWM	Communications WMSCR Processing
DLP	Data Link Processor
DMA	Direct Memory Access
DME	DME Corporation
DP	Data Point
DT&E	Development Test and Evaluation
GAI	Global Atmospherics, Inc.
FAA	Federal Aviation Administration
HDLC	High Level Data Link Control
Hz	Hertz
I/F	Interface
I/O	Input/Output
ICC	Interface Control Card
IPS	Interactive Process Simulator
IRQ	Interrupt Request
ITWS	Integrated Terminal Weather System
IUC	IPS Unix Console
Kb	kilobytes

LAA	Lightning Activity Area
LAD	Lightning Activity Data
LDD	Lightning Detection Data
LHT	Lightning Processing
LMPA	Line Monitor/Protocol Analyzer
LRU	Line Replaceable Units
MB	megabytes
MCC	Mission Cycle Control
METAR	Aviation Routine Weather Report
MHz	megahertz
MP	Maintenance Processing
MPS	Maintenance Processor Subsystem
ms	millisecond
MTBF	Mean Time Between Failure
NADIN	National Airspace Data Interface Network
NAS	National Airspace System
NCP	NAS Change Proposal
NLDN	National Lightning Data Network
NLDN	National Lightning Detection Network
nmi	nautical mile
NRM	Normal Response Mode
OEF	Operational Evaluation Facility
OMO	One Minute Observation
OT&E	Operational Test and Evaluation
PC	Personal Computer
PSF	Program Support Facility
PSN	Packet Switching Network
PTR	Program Trouble Report
QFB	Quality Factor Bit
RA	Reliability and Availability
RMMS	Remote Maintenance Monitoring System
RMS	Remote Maintenance Subsystem
RMS	Remote Monitoring System
SCSI	Small Computer Systems Interface
SI	Specialist Interface

SIR	Site incident Report
SFW	Specified Flash Message
SL	System Log
SOW	Statement of Work
SPECI	Aviation Selected Special Weather Report
SRS	System Requirements Specification
SSR	Startup Shut down Recovery
SUM	Software User Manual
SW/HW	Software/Hardware
T&E	Test and Evaluation
TAF	Terminal Aerodrome Forecast
TCF	Test Conduct Form
TLCSC	Top Level Computer Software Components
TSB	Thunderstorm Begin
TSE	Thunderstorm End
TSNO	Thunderstorm No
VDD	Version Description Document
VME	Versa Module
WARP	Weather and Radar Processor
WDP	Weather Data/Conversion Processing
WMSCR	Weather Message Switching Center Replacement
WSP	Weather Storage Processing
Y2K	Year 2000

APPENDIX A

TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

10. TEST VERIFICATION REQUIREMENT TRACEABILITY MATRIX (TVRTM)

The ALDARS TVRTM contains NAS-SS-1000 Volume II and Volume III requirements extracted from NCPs 14850 (METAR), 16133 (ALDARS), and 17331(ITWS). The TVRTM is comprised of five tables, one table for each NAS-SS-1000 Volume in each of the NCPs, except for Volume III NAS-SS-1000 ITWS requirements. The first entry of each table lists the source document of the requirements. Each of the tables are framed by double lines, and the table's last entry is all null fields (i.e. the last line is empty). Therefore, it is easily determined if a table is continued on the next page as the bottom of table frame is a single line and the last table entry on the page is not empty.

10.1. COLUMN DEFINITIONS AND UTILIZATION

The ALDARS TVRTM has ten columns which provide the following information for the requirements:

1) Test Description ID# - Identifies the test which verifies compliance with the ALDARS or METAR requirement.

2) Requirement Paragraph Reference - Uniquely identifies each requirement based on the paragraph number of the paragraph containing the shall statement which defines the requirement. If the paragraph contains a single requirement, the requirement is identified by the paragraph number. If the paragraph contains multiple shall statements, the requirement is identified by the paragraph number followed by a dash (-) and a positional number, i.e. 3.2.1.5.8-3 refers to the third shall statement in paragraph 3.2.1.5.8. If a shall statement has multiple objects (i.e. is a compound sentence, or refers to either a list, figure, or table), the requirement is identified by the paragraph number followed by a dash (-), a positional number, and a positional letter, i.e. 3.2.1.5.8-1b refers to the second object of the first shall statement of paragraph 3.2.1.5.8. If the requirement is from a figure or a table, an F or a T is placed between the dash (-) and the positional number, i.e. 3.2.1.5.8-T1j refers to the first item in row j in table 3.2.1.5.8-1.

3) Description - provides a brief description of the requirement.

4) Test Activity, Integration - lists the verification method used during OT&E Integration testing.

5) Test Activity, Operational - lists the verification method used during OT&E Operational testing.

6) Threshold MAOR - lists the Minimum Acceptable Operational Requirements (MAOR) which are the stated thresholds for operational performance below which the system will not meet mission needs.

7) EC COI CPP - lists any Exit Criteria (EC), Critical Operational Issues (COI), and/or Critical Performance Parameters (CPP) associated with the requirement.

8) Test Plan Paragraph / Remarks - Lists, the OT&E Test Plan Paragraph which addresses the requirement, and any remarks associated with the requirement.

9) Test Proc Paragraph / X-Ref - Lists, the OT&E Test Procedure Paragraph which addresses the requirement, and all associated test data cross-reference numbers (CRxx's). CRxx's are redlined in the procedure's 'Evaluation Criteria' and 'Expected Test Data" paragraphs.

The verification method listed in the Test Activity columns will be one of the following:

T = Test
D = Demonstration
A = Analysis
I = Inspection
L = Verified by Lower Layer Requirement(s)
X = Not Applicable
Q = Deferred Qualification Requirement (Does Not Exist In NAS Now)
P = Previously Qualified (Exists In NAS But Will Not Be Re-Demonstrated)
R = Previously Qualified And Will Be Re-Demonstrated

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

10.2. TRACEABILITY MATRIX

Table 10.2-1 ADAS NAS-SS-1000 Volume II ALDARS Requirements

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
LSS2-001	Vol. II 3.2.1.5.8-1b	Process LDD	T	T			4.4.1.1.2	AL-02A: CR01 AL-02B: CR01 AL-02C: CR01 AL-03:CR01 AL-09:CR01 AL-11:CR01
LSS2-002	Vol. II 3.2.1.5.8-2a	Collect Data from LDN	T	T		COI	4.4.1.1.1	AL-01C:CR01 AL-06: CR02-CR04 AL-09: CR02
LSS2-003	Vol. II 3.2.1.5.8-2b	Process Data from LDN	T	T			4.4.1.1.2	AL-02A: CR02 AL-02B: CR02 AL-02C: CR02 AL-03:CR02 AL-04:CR01 AL-09:CR03 AL-11:CR02
LSS2-004	Vol. II 3.2.1.5.8-2c	Store LDD	T	T		COI	4.4.1.1.2	AL-02A: CR03 AL-02B: CR03 AL-02C: CR03 AL-03:CR03 AL-09:CR04 AL-10:CR01
LSS2-005	Vol. II	Support Maintenance	T	T			4.4.1.1.2	Appendix C

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
	3.2.1.5.8-2d							(MPS)
LSS2-006	Vol. II 3.2.1.5.8-2e	Maintain LDD Database	T	T			4.4.1.1.2	AL-02A: CR04 AL-02B: CR04 AL-02C: CR04 AL-03:CR04 AL-09:CR05
LSS2-007	Vol. II 3.2.1.5.8.1.1.1	Collect LDD from LDN	T	T			4.4.1.1.1	AL-08: CR01, CR02, CR03 AL-09: CR06
LSS2-008	Vol. II 3.2.1.5.8.1.2.1-1	Calculate Proximity of lightning strike	T	T	within 30nm of ASOS/AWOS	COI	4.4.1.1.2	AL-02A: CR05 AL-02B: CR05 AL-02C: CR05 AL-03:CR05 AL-04:CR02 AL-05:CR01 AL-09:CR07
LSS2-009	Vol. II 3.2.1.5.8.1.2.1-2	Generate LDD Message	T	T	When lightning occurs	COI	4.4.1.1.2	AL-02A: CR06 AL-02B: CR06 AL-02C: CR06 AL-03:CR06 AL-04:CR03 AL-05:CR02 AL-09:CR08
LSS2-010	Vol. II 3.2.1.5.8.1.2.1-3a	Maintain Status: Movement of lightning activity	T	T	over specified time period		4.4.1.1.2	AL-02A: CR07 AL-02B:

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
								CR07 AL-02C: CR07 AL-03:CR07 AL-09:CR09
LSS2-011	Vol. II 3.2.1.5.8.1.2.1-3b	Maintain Status: Cessation of lightning activity	T	T	over specified time period		4.4.1.1.2	AL-02A: CR08 AL-02B: CR08 AL-02C: CR08 AL-09:CR10
LSS2-012	Vol. II 3.2.1.5.8.1.2.1-4a	Identify Data as Missing: System Outage	T	T	Notify ASOS/AWOS		4.4.1.1.6	AL-08: CR01, CR02
LSS2-013	Vol. II 3.2.1.5.8.1.2.1-4b	Identify Data as Missing: Degraded Service	T	T	Notify ASOS/AWOS		4.4.1.1.6	AL-08: CR03
LSS2-014	Vol. II 3.2.1.5.8.1.4.1	Disseminate Current LDD Message	T	T	once/minute	COI	4.4.1.1.3	AL-02B: CR37 AL-02C: CR33 AL-05:CR03 AL-06:CR11-CR12 AL-09:CR11
LSS2-015	Vol. II 3.2.1..5.8.2.1.1-1c	Accept LDN Data	T	T	Max 1100/minute	COI	4.4.1.1.4	AL-06: CR01, CR05
LSS2-016	Vol. II 3.2.1.5.8.2.2.7-1	Maintain Lightning Strike Counts	T	T	most recent 15 min for each ASOS/AWOS		4.4.1.1.2	AL-02A: CR09 AL-02B: CR09 AL-02C: CR09 AL-03:CR08 AL-09:CR12
LSS2-017	Vol. II 3.2.1.5.8.2.2.7-2a	At the Airport Count <= 5nm	T	T	At the airport	COI	4.4.1.1.2	AL-02A: CR10

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
								AL-02B: CR10 AL-02C: CR10 AL-03:CR09 AL-09:CR13
LSS2-018	Vol. II 3.2.1.5.8.2.2.7-2b	Vicinity of Airport Count >= 5 & < 10nm	T	T	Vicinity of airport	COI	4.4.1.1.2	AL-02A: CR11 AL-02B: CR11 AL-02C: CR11 AL-03:CR10 AL-09:CR14
LSS2-019	Vol. II 3.2.1.5.8.2.2.7-2c	Cardinal Sector Counts >= 10 & <= 30nm	T	T	8 sectors of 45° starting at 22.5° (8 compass points)		4.4.1.1.2	AL-02A: CR12 AL-02B: CR12 AL-02C: CR12 AL-03:CR11 AL-09:CR15
LSS2-020	Vol. II 3.2.1.5.8.2.4.1	LDD Dissemination rate	T	T	to each ASOS/AWOS once per minute	COI	4.4.1.1.5	AL-02B: CR37 AL-02C: CR33 AL-06: CR09
LSS2-021	Vol. II Figure 3.2.1.5.8.3-F1j	ADAS to ASOS/AWOS	T	T	Use existing comm lines		4.4.1.1.2 & 4.4.1.1.3	AL-06: CR09 AL-09: CR16
LSS2-022	Vol. II Figure 3.2.1.5.8.3-F1k	LDN to ADAS	T	T	Vendor data via 1200 baud RS-232 line	COI	4.4.1.1.4	AL-01D:CR01 AL-06:CR01 IN-12D CR02
LSS2-023	Vol. II Table	ADAS to ASOS/AWOS	T	T	152 bits per minute		4.4.1.1.5	AL-06:

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX								
Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
	3.2.1.5.8.3-T1j				per ASOS/AWOS			CR06
LSS2-024	Vol. II Table 3.2.1.5.8.3-T1k	LDN to ADAS	T	T	216 bits, 667 times per minute	COI	4.4.1.1.4	AL-01A:CR01 AL-01B:CR01 AL-01C:CR01 AL-01D:CR02 AL-06:CR01, CR06 IN-12D CRO3

Table 10.2-2 AWOS/ASOS NAS-SS-1000 Volume III ALDARS Requirements

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
LSS3-001	Vol. III 3.2.1.2.1.1.10	AWOS/ASOS Reports T'storms	T	T				AL-02B: CR38 & CR39 AL-02C: CR34 & CR35 AL-09:CR17 & CR18
LSS3-002	Vol. III 3.2.1.2.1.1.10.1	ASOS receives LDD from ADAS	T	T		COI		AL-02B: CR37 AL-02C: CR33 AL-06:CR01, CR08 AL-09:CR19 & CR20
LSS3-003	Vol. III 3.2.1.2.1.1.10.2	AWOS/ASOS Report if ADAS data is unavailable	T	T		COI		AL-08:CR04 & CR05
LSS3-004	Vol. III 3.2.1.2.1.2.10.1	AWOS/ASOS receives LDD once/min	T	T				AL-02B: CR37 AL-02C:CR33 AL-06:CR01, CR09 AL-09:CR19 & CR20
LSS3-005	Vol. III 3.2.1.2.1.2.10.2	AWOS/ASOS Report lightning	T	T	When current LDD indicates that lightning is presently active	COI		AL-02B: CR37 AL-02C:CR33 AL-06:CR01, CR07, CR10 AL-09:CR21 & CR22
LSS3-006	Vol. III 3.2.1.2.1.2.10.3-1a	AWOS/ASOS Report Lightning at the airport	T	T	<5nm			AL-02B: CR13, CR24 AL-02C:CR13, CR23

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
LSS3-007	Vol. III 3.2.1.2.1.2.10.3-1b	AWOS/ASOS Report Lightning in Vicinity of Airport	T	T	>=5nm & <=10nm			AL-02B: CR14, CR25 AL-02C:CR14, CR24
LSS3-008	Vol. III 3.2.1.2.1.2.10.3-1c	AWOS/ASOS Report Lightning Sector Directional Designator	T	T	>10nm & <=30nm			AL-02B: CR15-23 & CR26-34 AL-02C:CR15-22 & CR25-32
LSS3-009	Vol. III Figure 3.2.1.2.1.3-F1A5	ADAS LDD to AWOS/ASOS	T	T	152 bits/min			AL-06:CR06
LSS3-010	Vol. III Table 3.2.1.2.1.3-T1A5	ADAS LDD to AWOS/ASOS	T	T	152 bits/min			AL-06:CR06

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

Table 10.2-3 ADAS NAS-SS-1000 Volume II METAR Requirements

FAA TEST VERIFICATION TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
MSS2-001	Vol. II 3.2.1.5.8.1.2-1A	Identify observations qualifying as routine hourly (METAR)	T	T			4.4.1.3	170-0200 {All CR's}
MSS2-002	Vol. II 3.2.1.5.8.1.2-1B	Identify observations qualifying as special (SPECI)	T	T			4.4.1.3	170-0300 {All CR's}
MSS2-003	Vol. II 3.2.1.5.8.2.1.1.b-2	Collect weather data from ASOS/AWOS	T	T	Hourly (METAR) and special (SPECI) observations	COI	4.4.1.3	130 {All CR's}
MSS2-004	Vol. II 3.2.1.5.8.2.2.3.a.1-2	Issue SPECI	T	T	Ceiling: 3000 feet		4.4.1.3	170-0300 CR4E / CR3A
MSS2-005	Vol. II 3.2.1.5.8.2.2.3.a.2-2	Issue SPECI	T	T	Ceiling: 1000 feet		4.4.1.3	170-0300 CR4C / CR3B
MSS2-006	Vol. II 3.2.1.5.8.2.2.3.a.3-2	Issue SPECI	T	T	Ceiling: 500 feet		4.4.1.3	170-0300 CR4B / CR3C
MSS2-007	Vol. II 3.2.1.5.8.2.2.3.a.4-2	Issue SPECI	T	T	Ceiling: local minimum		4.4.1.3	170-0300 CR4A / CR3F
MSS2-008	Vol. II 3.2.1.5.8.2.2.3.b.1-2	Issue SPECI	T	T	Clouds: 1000 feet		4.4.1.3	170-0300 CR4C / CR3C
MSS2-009	Vol. II 3.2.1.5.8.2.2.3.b.2-2	Issue SPECI	T	T	Clouds: local minimum		4.4.1.3	170-0300 CR4A / CR3F
MSS2-010	Vol. II 3.2.1.5.8.2.2.3.c.1-2	Issue SPECI	T	T	Visibility: 3 miles		4.4.1.3	170-0300 CR8A / CR9D
MSS2-011	Vol. II 3.2.1.5.8.2.2.3.c.2-2	Issue SPECI	T	T	Visibility: 2 miles		4.4.1.3	170-0300 CR8B / CR9C
~~MSS2-012~~	~~Vol. II 3.2.1.5.8.2.2.3.c.3-2~~	~~Issue SPECI~~	~~T~~	~~T~~	~~Visibility: 1.5 miles~~	DELETED by MOD2 Changes to Contract		
MSS2-013	Vol. II 3.2.1.5.8.2.2.3.c.4-2	Issue SPECI	T	T	Visibility: 1 mile		4.4.1.3	170-0300 CR8C / CR9B

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
MSS2-014	Vol. II 3.2.1.5.8.2.2.3.c.5-2	Issue SPECI	T	T	Visibility: local min		4.4.1.3	170-0300 CR8D / CR9A
MSS2-015	Vol. II 3.2.1.5.8.2.2.3.d-2	Issue SPECI	T	T	Wind Shift: ≥45°, <15 minutes, & >6 knots		4.4.1.3	170-1700-020 CR1, CR2, & CR3
MSS2-016	Vol. II 3.2.1.5.8.2.2.3.e-2	Issue SPECI	T	T	T'storm: Starts or ends		4.4.1.3	170-1700-050 CR36 & CR37
MSS2-017	Vol. II 3.2.1.5.8.2.2.3.f.1-2	Issue SPECI	T	T	Hail: Starts or ends		4.4.1.3	170-0300 CR10A & CR10B
MSS2-018	Vol. II 3.2.1.5.8.2.2.3.f.2-2	Issue SPECI	T	T	Freezing rain: Starts, changes intensity, or ends		4.4.1.3	170-0300 CR10G - CR10K
MSS2-019	Vol. II 3.2.1.5.8.2.2.3.f.3-2	Issue SPECI	T	T	Ice pellets: Starts, changes intensity, or ends		4.4.1.3	170-0300 CR10C - CR10G
MSS2-020	Vol. II 3.2.1.5.8.2.2.3.g-2	Issue SPECI	T	T	RVR: 2400 feet		4.4.1.3	170-0300 CR11A & CR11B
MSS2-021	Vol. II 3.2.1.5.8.2.2.3.h.1-2	Issue SPECI	T	T	Pressure Jump: ≥0.02 inHg		4.4.1.3	170-1700-060 CR13 - CR15
MSS2-022	Vol. II 3.2.1.5.8.2.2.3.h.2-2	Issue SPECI	T	T	Pressure Jump: ≥20 minutes		4.4.1.3	170-1700-060 CR13 - CR15
MSS2-023	Vol. II 3.2.1.5.8.2.2.3.h.3-2	Issue SPECI	T	T	Pressure Jump: distinctly separate		4.4.1.3	170-1700-060 CR17 - CR18
MSS2-024	Vol. II 3.2.1.5.8.2.2.3.1.3-2A	Issue SPECI	T	T	Tornado observed and identified in AWOS message		4.4.1.3	170-0300 CR11C & CR11D
MSS2-025	Vol. II 3.2.1.5.8.2.2.3.1.3-2D	Issue SPECI	T	T	Waterspout observed and identified in AWOS message		4.4.1.3	170-0300 CR11G & CR11H
MSS2-026	Vol. II 3.2.1.5.8.2.2.3.1.3-2C	Issue SPECI	T	T	Funnel Cloud observed and identified in AWOS		4.4.1.3	170-0300 CR11E &

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
					message			CR11F
MSS2-027	Vol. II 3.2.1.5.8.2.2.5-1A	Convert messages for dissemination to WMSCR	T	T	METAR messages for Hourlies	COI	4.4.1.3	170-0200 {All CR's}
MSS2-028	Vol. II 3.2.1.5.8.2.2.5-1B	Convert messages for dissemination to WMSCR	T	T	SPECI messages for specials	COI	4.4.1.3	170-0300 {All CR's}
MSS2-029	Vol. II 3.2.1.5.8.2.4.c	Disseminate surface observations to WMSCR	T	T	Hourlies and specials in METAR format	COI	4.4.1.3	170-0100 {All CR's}
MSS2-030	Vol. II 3.2.1.5.8.2.6.a-1	SPECI message throughput	T	T	Within 5 sec of receipt of data	COI	4.4.1.3	ST-02 10.6.7.10-b&c CR1 - CR10
MSS2-031	Vol. II 3.2.1.5.8.2.6.b-1	METAR message throughput	T	T	Within 10 sec of receipt of data	COI	4.4.1.3	ST-02 10.6.7.10-b&c CR1 - CR10
MSS2-032	Vol. II Table 3.2.1.5.8.3-T1C1	METAR Format Hourly Observations (ASOS to ADAS)	T	T	2.4 Kb, 137 times/hr	COI	4.4.1.3	ST-02 10.6.7.10-d CR11
MSS2-033	Vol. II Table 3.2.1.5.8.3-T1K1	Metar Format Hourly Observations (ADAS to WMSCR)	T	T	2.4 Kb, 137 times/Hr	COI	4.4.1.3	ST-02 10.6.7.10-d CR11

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

Table 10.2-4 AWOS/ASOS NAS-SS-1000 Volume III METAR Requirements

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
MSS3-001	Vol. III 3.2.1.2.1.2.2.c.1-1	AWOS Ambient Temp Range	T	T	-60 to +130°F		Report in Celsius	
MSS3-002	Vol. III 3.2.1.2.1.2.2.c.2-1	AWOS Ambient Temp Precision	T	T	1°F root mean square error (RMSE), with a maximum of 2°F at any temperature		Report in Celsius	
MSS3-003	Vol. III 3.2.1.2.1.2.2.c.3-1	AWOS Ambient Temp Resolution	T	T	1°F	COI	Report in Celsius	
MSS3-004	Vol. III 3.2.1.2.1.2.2.d.2.a-1	AWOS Dewpoint Precision	T	T	2°F dewpoint for dry bulb temperatures of +30 to +90°F (80% to 100% rel. humidity)		Report in Celsius	
MSS3-005	Vol. III 3.2.1.2.1.2.2.d.2.b-1	AWOS Dewpoint Precision	T	T	3°F dewpoint for dry bulb temperatures of +30 to +120°F (15% to 75% rel. humidity)		Report in Celsius	
MSS3-006	Vol. III 3.2.1.2.1.2.2.d.2.c-1	AWOS Dewpoint Precision	T	T	4°F dewpoint for dry bulb temperatures of -30 to +20°F (25% to 95% rel. humidity)		Report in Celsius	
MSS3-007	Vol. III 3.2.1.2.1.2.2.d.3-1	AWOS Dewpoint Resolution	T	T	1°F		Report in Celsius	
MSS3-008	Vol. III 3.2.1.2.1.2.2.j.1.a.1-1	AWOS Identify Precipitation Type	T	T	+28 to +38°F, identify precipitation type as rain in 90% of the cases			
MSS3-009	Vol. III 3.2.1.2.1.2.2.j.1.a.2-1	AWOS Identify Precipitation Type	T	T	+28 to +38°F, identify precipitation type as drizzle in 80% of the cases			
MSS3-010	Vol. III 3.2.1.2.1.2.2.j.1.a.3-1	AWOS Identify Precipitation Type	T	T	+28 to +38°F, identify precipitation type as snow in 90% of the			

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX								
Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
					cases			
MSS3-011	Vol. III 3.2.1.2.1.2.2.j.1.a.4-1	AWOS Identify Precipitation Type	T	T	+28 to +38°F, identify precipitation type as ice pellets in 50% of the cases			
MSS3-012	Vol. III 3.2.1.2.1.2.2.j.1.b-1	AWOS Identify Precipitation Type	T	T	Less than +28°F, identify precipitation type as snow in 99% of the cases			
MSS3-013	Vol. III 3.2.1.2.1.2.2.j.1.c.1-1	AWOS Identify Precipitation Type	T	T	Greater than +38°F, identify precipitation type as rain in 99.5% of the cases			
MSS3-014	Vol. III 3.2.1.2.1.2.2.j.1.c.2-1	AWOS Identify Precipitation Type	T	T	Greater than +38°F, identify precipitation type as drizzle in 90% of the cases			
MSS3-015	Vol. III 3.2.1.2.1.2.2.j.1.c.3-1	AWOS Identify Precipitation Type	T	T	Greater than +38°F, identify precipitation type as hail in 90% of the cases			
MSS3-016	Vol. III 3.2.1.2.1.2.3.c.1-1	ASOS Ambient Temp Range	T	T	-80 to +130°F		Report in Celsius	
MSS3-017	Vol. III 3.2.1.2.1.2.3.c.2-1b	ASOS Ambient Temp Precision	T	T	±1°F (-58 to +122°F)		Report in Celsius	
MSS3-018	Vol. III 3.2.1.2.1.2.3.c.2-2b	ASOS Ambient Temp Precision	T	T	±2 (remainder of temperature range)		Report in Celsius	
MSS3-019	Vol. III 3.2.1.2.1.2.3.c.3-1	ASOS Ambient Temp Resolution	T	T	0.1°F	COI	Report in Celsius	
MSS3-020	Vol. III 3.2.1.2.1.2.3.d.1-1	ASOS Dewpoint Range	T	T	-30 to +80°F		Report in Celsius	
MSS3-021	Vol. III	ASOS Dewpoint Precision	T	T	±2°F RMSE (from +30		Report in	

ALDARS/METAR TEMP VERIFICATION REQUIREMENTS TRACEABILITY MATRICES (TVRTMs)

FAA TEST VERIFICATION REQUIREMENTS TRACEABILITY MATRIX

Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
	3.2.1.2.1.2.3.d.2-1b				to +86°F)		Celsius	
MSS3-022	Vol. III 3.2.1.2.1.2.3.d.2-2b	ASOS Dewpoint Precision	T	T	±3°F RMSE (from -10 to +30°F)		Report in Celsius	
MSS3-023	Vol. III 3.2.1.2.1.2.3.d.2-3b	ASOS Dewpoint Precision	T	T	±4°F RMSE (from -30 to -10°F)		Report in Celsius	
MSS3-024	Vol. III 3.2.1.2.1.2.3.d.3-1	ASOS Dewpoint Resolution	T	T	±0.1°F		Report in Celsius	
MSS3-025	Vol. III Table 3.2.1.2.1.3-T1B2	ASOS Metar Format Hourly Obsrevations (ASOS to ADAS)	T	T	2.4 Kb. 137 times/Hr	COI		
MSS3-026	Vol. III Table 3.2.1.2.1.3-T1H1	ASOS Metar Format Special Observations (ASOS to WX OBSR)	T	T	2.4 Kb/Hr	COI		
MSS3-027	Vol. III Table 3.2.1.2.1.3-T1I1	ASOS Weather Augmentation (WX OBSR to ASOS)	T	T	1024 Kb. 5 times/Hr	COI		

Table 10.2-5 ADAS NAS-SS-1000 Volume II ITWS Requirements

FAA TEMP VERIFICATION TRACEABILITY MATRIX								
Test Description ID#	NAS-SS-1000 Paragraph References:	DESCRIPTION	TEST INTEG	ACTIVITY OPER	THRESHOLD MAOR	EC COI CPP	TEST PLAN PARAGRAPH / REMARKS	TEST PROC PARAGRAPH / Xref #(s)
ISS2-001	Vol. II 3.2.1.5.8.1.4	The ADAS shall disseminate surface observations to ITWS.	T	T			4.4.1.4	IT-05D:CR01
ISS2-002	Vol. II 3.2.1.5.8.2.4-c	ADAS shall deliver to the ITWS subsystem, Current AWOS & ASOS messages in AWOS format	T	T		COI	4.4.1.4	IT-05D:CR02
ISS2-003	Vol. II 3.2.1.5.8.2.4.1-b	The ADAS shall disseminate current (updated within the previous minute) lightning detection data to each ITWS once per minute.	T	T		COI	4.4.1.4	IT-05D:CR03
ISS2-004	Vol. II Figure 3.2.1.5.8.3-F1	ADAS shall disseminate data to the ITWS via the NADIN PSN.	T	T			4.4.1.4	IT-05D:CR04 IN-12D:CR01
ISS2-005	Vol. II Table 3.2.1.5.8.3-T111	ADAS shall disseminate Lightning Detection Data Messages to ITWS	T	T	216 bits, 667 times/minute per ITWS	COI	4.4.1.4	AL-01A:CR02 AL-01B:CR02 AL-01C:CR02 AL-01D:CR03 IT-05D:CR05
ISS2-006	Vol. II Table 3.2.1.5.8.3-T112	ADAS shall disseminate Current AWOS/ASOS Surface Weather Observation Messages to ITWS	T	T	1.6 KB, 137 times/minute per ITWS	COI	4.4.1.4	IT-05D:CR06

IT-01	- {4102-6} Channel Connection Test FST (ITWS)	ISS2-001
IT-02	- {4231-1} DLP / ITWS / WARP Buffering	ISS2-002, ISS2-003, ISS2-005, ISS2-006
IT-03	- {4232-1} DLP / ITWS / WARP Variable Length Messages	ISS2-002, ISS2-003, ISS2-005, ISS2-006
IT-04	- {4331-1} DLP / ITWS / WARP Message Errors	
IT-05	- ITWS Functional/Physical Setup	ISS2-004

APPENDIX B

PROGRAM TROUBLE REPORTS

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-001
PTR Title	NLDN Serial Buffer Backup
PTR Open	—
PTR Accepted	✓
Discover Date	8/4/97
Failure Category	System
Criticality	Critical
Originator	Vuong
Location	ADAS PSF
Software Version	4.18/3.12
Related PTRs	DME PCR # 284
Affected Reqs	
Discrepancy Discription	During the NLDN interface test, the communication status between NLDN and ADAS fails. The reasons are 1. a) When ADAS is down, the serial buffer box fills up with LDD. b) Then ADAS comes back up after a few hours, the serial buffer box does not reestablish the communication. c) If ADAS comes back up after a few minutes, the serial buffer box does re-establish the communication. 2. a) When ADAS is down, the serial buffer box fills up with LDD. b) Then ADAS is up, the serial buffer box does not flush out the old LDD. Meanwhile, in order to establish a communication between ADAS and NLDN, operator needs to hit the reset button of the serial buffer box. 8/21/97 - DGG Came in and NLDN system was not displaying lightning data. Checked patch panel and cables and all was OK. When Reset on NLDN Serial Buffer Box was performed communications resumed to normal and lightning began to be displayed. This indicates the criticality of this problem. Had this been an operational ADAS, no LDDs would have been sent and a manual Reset of the buffer box would have been necessary. From an operational standpoint this is unacceptable.

ALDARS PTR DETAILED REPORT - ALL

9/5/97 DGG

Further tests were run earlier in the week to determine if ADAS would begin communicating with the buffer box when reconnected after several hours of being disconnected. Tests revealed that ADAS would begin communicating again, however, the problem still remains that hours of old data are sent to ADAS.

Recommendation

DME has already stated that they plan to increase the baud rate to 19,200 when ADAS starts up to ensure that all old data stored in NLDN serial buffer box is "drained off". It also needs to be verified that ADAS begins communicating properly with the NLDN buffer box (ACT had problems just getting comm between ADAS and buffer box without hitting reset on buffer box).

8/21/97 - DGG

Based on the problems described above, the Serial Buffer Box should not be used operationally. DME needs to investigate this problem further and come up with an alternate solution.

9/5/97 DGG
Although there does not seem to be a problem with reconnecting after comm is down, there still needs to be a fix to the old data that is sent to ADAS. As OT&E goes on further tests will be performed to determine if there are any other unacceptable operational issues related to the use of the serial buffer box.

11/25/97 - DGG
At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.

Action Taken

Notes

Although DME has this as a PCR and plans to implement changes. ACT created a PTR to ensure that this is regression tested for build 4.19.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-002
PTR Title	IPS X.25 Board Failure
PTR Open	☐
PTR Accepted	☑
Discover Date	8/4/97
Failure Category	System
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	4.18/3.12
Related PTRs	
Affected Reqs	
Discrepancy Discription	At the start of tests AL-03 on 7/31 and AL-04 on 8/4 message on ISC came up that test started but on IUC received multiple messages of all the S Pongs had failed (see log book for record of what was on IUC). The red light for the IPS X.25 card came on and the test terminated although the LDD script had never been started. Both IPS and ADAS systems were shutdown and brought back up, but red light remained on. 11/07/97 DGG The problem ended up being that the cables had come loose and therefore the problem was intermittent.
Recommendation	Although this seems likely to be an IPS problem, it is unclear why this problem didn't start occurring until after 4.18 was officially loaded on 7/23. Up until then this problem never occurred through numerous dry runs of these exact tests. DME needs to investigate this problem further and determine that it in fact is IPS and not ADAS related.
Action Taken	Although the problem still exists, a work around has been incorporated to clear the problem. 9/5/97 DGG Ed Schlain recalled a similar problem in the past. Two converters were removed in the connection from ADAS to IPS. So far no problems have occurred.

ALDARS PTR DETAILED REPORT - ALL

11/7/97 DGG
The solution was to recable and to implement the use of a switch box. Therefore this PTR is closed.

Notes

Jock made some printouts of data that may be useful in analyzing this error. DGG

Ed states this occurs due to the PQAD (pretty quick and dirty) of the IPS, which originally
was only to be a DT&E testbed stubs & drivers tool. CommPower's OSI software for the IPS X.25 was a PQAD conversion of the software delivered from ONE for the ADAS X.25 OSI. JKS

9/2/97 - Error occurred, and when cleared, would immediately re-occur when an IPS test was started. Error was finally cleared and successfully communications re-established when the ADAS & IPS were directly connected, by-passing the Patch Panel & RS-232/RS-530 converters. As the PST testbed has had numerous problems with the converters going bad, it currently seems that the X.25 card error is related to failure of 1, or both, converters. JKS

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-003
PTR Title	AWOS/ASOS Message
PTR Open	☐
PTR Accepted	☑
Discover Date	8/6/97
Failure Category	Software
Criticality	Moderate
Originator	Vuong
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	
Discrepancy Discription	AWOS/ASOS message from ADAS to WMSCR is more than 69 characters. Therefore it causes a problem for WMSCR to process weather data properly.
Recommendation	AOS branch needs to incorporate necessary software changes to eliminate the messages with more than 69 characters. 11/7/97 - HHV AUA needs to determine AOS branch or DME Corp. for fixing the problem. 11/25/97 - DGG It was decided at the PMR that this will be implemented for the build 4.19. If AOS gets DME the change promptly, then DME will incorporate the change. However, if AOS wants to extend field testing of change and therefore not provide DME the change in advance of DT&E, then AOS will incorporate into build 4.19 after OT&E. 2/25/98 - HHV AOS needs to incorporate the software changes into build 4.19.
Action Taken	
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-004
PTR Title	ITWS Reconnect AWOS Error
PTR Open	☐
PTR Accepted	☑
Discover Date	8/18/97
Failure Category	Software
Criticality	Moderate
Originator	Stratton
Location	ADAS PSF
Software Version	4.19 /4.18 / 3.12
Related PTRs	
Affected Reqs	
Discrepancy Discription	During test IT-01, the 6 ITWS simulators are disabled for 30 seconds during the 3rd mission cycle. After the simulators are re-enabled, the ITWS simulators receive lightning data msgs, but do not receive AWOS msgs. 2/11/98 - JKS : Original test, which disables the ITWS's after the 3rd ADAS_AWOS_POLL still fails! Modified version of test, which waits for 30 seconds after the 3rd ADAS_AWOS_POLL before disabling the ITWS's, works correctly - with both AWOS OMO's and NLDN LDD's being sent to, and receive by the IPS ITWS's. 2/20/98 - JKS : Tested AOS fix to CSC 'cit_out' - Test PASSED indicating AOS fix has corrected the problem.
Recommendation	DME needs to research error, and fix if on the ADAS side. 11/25/97 - DGG At PMR it was confirmed that this PTR would be addressed by DME in build 4.19. 2/10/98 - JKS : DME must update the ITWS output logic to correctly handle ITWS comm failures when they occur after ADAS Polls the AWOS's and prior to ADAS OMO output to the ITWS's. (ADAS correctly handles failures that occur after ADAS OMO output to the ITWS's and prior to the beginning of the next mission cycle.

	2/20/98 - JKS- ACT-320 must monitor AOS updating of delivered software prior to delivery to field sites.
Action Taken	AOS delivered an updated 'cit_out' binary. ACT-320 testing confirmed ADAS fully reconnects with ITWSs.
	JKS 23Mar98 - Testing of the AOS Deployment build verify correction of the ITWS reconnection problem.
Notes	Re-verify in Deployment build.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-005
PTR Title	Event Type 35 Notification
PTR Open	☐
PTR Accepted	☑
Discover Date	08/20/97
Failure Category	Software
Criticality	Moderate
Originator	Stratton
Location	ADAS PSF
Software Version	4.18 / 3.12
Related PTRs	
Affected Reqs	

Discrepancy Discription

When one of the DLP communication processes is killed (cdl_io -d), No Child Death message appears at the AUC, no entries are made in to the error log, and no event type 35 entries appear in the event log.

The test killed the process 6 times during mission cycles 2 through 9, and ADAS restarted the process without indication at the AUC, ASC, or in the logs. ADAS does not seem to re-establish communication with the DLP, because the test procedure kills
the first 'cdl_io -d' process in the 'ps -eaf' list within 1 to 2 minutes of the starting of the
new process. ADAS indicated neither an event type 1 - "Status of the DLP
connection has changed", nor an event type 35 - "A UNIX process within ADAS has
died" at any time during the test.

Recommendation

DME should report an event type 35 when the 'cdl_io -d' process is terminated,
and an event type 1 when ADU's are no longer being transferred to the DLP by
ADAS.

Action Taken

To determine if ADAS resumes DLP comm, the test will be re-run with all logs on and the process will be killed only once. Collected data will be forwarded to DME.

12/2/97 - DGG

ALDARS PTR DETAILED REPORT - ALL

Received a memo for Dan Casey, AOS-500, to help clarify this problem. Since this is only a problem that occurs as a result of a manual "killing" this PTR will be closed.

Notes

The test run was 9 mission cycles long, and the process was killed 6 times after the 1st cycle. Therefore the ADAS might have re-established comm if given time. Test will be re-run with all logs on ('Setlog 50') and the process will be killed only once. Data gathered will be forwarded to DME with PTR-004 data for analysis.

12/2/97 - DGG
See attached memo from Dan Casey, AOS-500.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-006
PTR Title	Setlog 50 Error
PTR Open	☐
PTR Accepted	☑
Discover Date	08/20/97
Failure Category	Software
Criticality	Minor
Originator	Stratton
Location	ADAS PSF
Software Version	4.18 / 3.12
Related PTRs	
Affected Reqs	
Discrepancy Discription	The "Setlog 50" command was executed and then an ADAS "clean" start was performed. Prior to reaching the operational state, ADAS displayed several error msgs at the AUC indicating illegal Setlog value.
Recommendation	DME needs to tweak their software modules to except a value of 50, even if 40 is the modules highest setting, so when the "Setlog 50" command
Action Taken	To determine if ADAS resumes DLP comm, the test will be re-run with all logs on and the process will be killed only once. Collected data will be forwarded to DME. 11/06/97 DGG Jock/DME agree that PTR can be closed.
Notes	The test run was 9 mission cycles long, and the process was killed 6 times after the 1st cycle. Therefore the ADAS might have re-established comm if given time. Test will be re-run with all logs on ('Setlog 50') and the process will be killed only once. Data gathered will be forwarded to DME with PTR-004 data for analysis

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-007
PTR Title	AWOS Station Lat/Long Edit Adaptation Error
PTR Open	☐
PTR Accepted	☑
Discover Date	8/27/97
Failure Category	Software
Criticality	Critical
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	DME PCR 285 OTE-030
Affected Reqs	
Discrepancy Discription	OT&E test AL-09 requires the capability to "move" AWOS stations into an area of lightning activity. The AWOS station was "moved" using the Edit Working Adapt and Install Working Adapt commands. Display Working Adapt seemed to indicate that the Lat/Long for the station had been changed to the appropriate location (i.e.. when the Edit and Install was completed "success" was indicated on the screen). However, the test was completed and no lightning strikes were reported to the station despite the apparent overlap of the lightning with the station. It appears that although the correct Lat/Long was displayed for the station, in fact the station hadn't moved from the original configuration file location. The test was rerun with the station's Lat/Long changed in the configuration file. With this setup the lightning was reported to the AWOS.
Recommendation	DME needs to change the software so that the Edit Working Adapt and Install Working Adapt work properly for the stations. 11/25/97 - DGG At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.
Action Taken	DME has already been working on this problem since they were informed of this during OT&E dry runs.

2/24/98 DGG
This PTR was verified as fixed during tests for AL-09, therefore this PTR is closed.

Notes

Although DME has generated a PCR, this problem will also be tracked by an OT&E PTR so that it can be verified as fixed during follow on OT&E.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-008
PTR Title	No Automated Remarks from OTIS
PTR Open	☐
PTR Accepted	☑
Discover Date	8/27/97
Failure Category	Other
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	
Related PTRs	OTE-031
Affected Reqs	
Discrepancy Discription	During test AL-09 on 8/27/97 from 14:41, the OTIS AWOS never reported any Automated Remarks for Lightning. OTIS did report TSB44, but never reported any lightning for any of the sectors, vicinity or at airport.

8/29/97 DGG
It seems from analyzing AL-09-3 data, that this problem does reside within ADAS. The DLP AWOS log revealed that OTIS sent a LTG DSNT NW. However, the SPECI, which is generated by ADAS did not include this remark.

10/22/97 DGG
Upon review of data Greg Kupi noted that the remarks that OTIS sent back were incorrectly placed in the OPERATOR REMARKS section. Therefore the problem is with the AWOS software.

11/06/97
Joe Gibson pointed out that the remarks end with an ! and therefore would indicate that AWOS is sending them back properly. For now, then, we'll classify as an ADAS problem and will be reported as such in the Quick Look Report. However, this could be changed if further analysis reveals it is an AWOS problem.

11/25/97 - DGG
The problem is that a space has been added to the automated lightning remarks and therefore when ADAS code checks oct

69 and finds it blank it assumes no auto remarks.

Recommendation

This problem does not seem to reside in the ADAS, therefore the AWOS program office needs to be informed of this problem and the AWOS software must be corrected. ??????? Need to verify this statement???????

8/29/97 DGG
The previous statement is not true. Based on data from AL-09-3, the problem resides with ADAS not generating the LTG DSNT NW remark in the SPECI. DME needs to fix this problem.

10/22/97 DGG
Since the problem is that the AWOS places the remarks in the OPERATORS REMARKS, the AWOS software needs to be corrected.

11/06/97 DGG

Since it seems to be a ADAS problem, Joe G was going to talk to Greg about looking into this. If the problem is with ADAS, DME needs to fix the software.

11/25/97 - DGG
Although the problem resides with the AWOS adding in a blank space at oct 69, the solution will be to update the ICD and then have DME change code to allow for blank space in oct 69 but still get the auto lightning remarks. This will be addressed in build 4.19.

Action Taken

2/24/98 - DGG

Data from OTE #2 al-02c-1.cap verifies that OTIS remarks are in the SPECIs, therefore this PTR is closed.

4/9/98 - DGG
ICD par 10.3.20 was modified to complete the resolution of this PTR.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-009
PTR Title	Automated Lightning Remarks Contradiction
PTR Open	☑
PTR Accepted	☑
Discover Date	8/27/97
Failure Category	Documentation
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-008, OTE-031
Affected Reqs	ADAS/AWOS ICD par 10.3.20.1, 30.3.3, Table 30-3, and 90.3.2.12.1.4.2 ADAS Spec par 3.1.4.2.3.2.5.2
Discrepancy Discription	Paragraph 10.3.20.1 of the ADAS/AWOS ICD states that "the automated remark pertaining to lightning shall be formatted and inserted in the AWOS Format Message automated remarks field in accordance with the requirements stated in Appendix III." Appendix III then goes on to define that automated remarks are to be generated for AT ARPT, VCNTY, and DATA MISSING. However, the ADAS Spec in paragraph 3.1.4.2.3.2.5.2 never addresses the conditions for generating the ARPT, VCNTY, or DATA MISSING automated lightning remarks. Paragraph 3.1.4.2.3.2.5.2 DOES reference the ADAS/AWOS ICD Table 30-3. This table DOES address the ARPT, VCNTY and DATA MISSING remarks. Although it is somewhat unclear, it does seem that since the ADAS Spec references ICD Table 30-3, that the ARPT, VCNTY, and DATA MISSING remarks should be generated. DME has not included these three remarks into the LAD message Field 3 and as a result the AWOS and ASOS OMO and SPECI and METAR messages do not contain these remarks.
Recommendation	A decision needs to be made as to whether ARPT, VCNTY, and DATA MISSING should be included in the Automated Remarks. Whatever the decision, the documentation needs to be corrected to avoid this contradiction. 11/07/97 DGG AUA needs to update the documentation.

11/25/97 - DGG
At the PMR it was agreed that AUA would change ICD table 30-3.

2/24/94 DGG
As of this date ACT-320 has not been informed that the change has been made.

Action Taken

4/9/98 - DGG
AUA indicated that the ICD paragraphs 30.3.3 and 30.40.1 and table 30-3 would be changed to correct this problem.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-010
PTR Title	AWOS Thunderstorm Begin/End Failure
PTR Open	☐
PTR Accepted	☑
Discover Date	8/27/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-032
Affected Reqs	

Discrepancy Description

During Test AL-09-1 a thunderstorm begin was reported as TSB44 (i.e.. 1444), however no TE was ever generated and eventually the TSB44 was dropped out of the reports. Then at 1700 METAR there was a TSB24 (supposedly for 1624, although no SPECI had been generated for that time). It was not known yet whether this is an AWOS or ADAS problem.

10/21/97 DGG
AL-02C-4 data was found to have the same problem. It appears that it is a problem with ADAS not correctly using the Octet 57/58 data for determining TSBhhmmEmm remarks.

11/25/97 - DGG
The original discrepancy description discussed the 1700 METAR and the associated TSB24. This TSB24 was correct. The SPECI was not required at 1624 because of the 5 minute window to check for Speci generation. However, the other aspect of this PTR is still a problem.

Recommendation

Either the AWOS software or ADAS software needs to be corrected.

10/21/97 DGG
Upon further inspection it appears that this is an ADAS problem and therefore DME will have to fix the software.

11/25/97 -DGG
As discussed at PMR, DME will implement fix to take care of "lost" TSE. This will be corrected in Build 4.19.

ALDARS PTR DETAILED REPORT - ALL

Action Taken

2/24/98 - DGG
This PTR was fixed as verified by data in al-02c-1.cap and therefore this PTR is closed. However, a new, related problem occurred during testing and therefore PTR OTE-052 was generated.

Notes

10/21/97 - DGG

The following e-mail message was sent to DME on 10/21/97:

Attached is the data for PTR OTE-010. The Metar messages and OMOs are included in the file al-02c-4.cap.

Here is an example of what seems to be a problem:

There is SPECI as follows:

SPECI OTIS 142047Z AUTO 14008KT 10SM TS FEW049
17/06 A3018 RMK A01
TSB52

and another one as follows:

SPECI OTIS 142102Z AUTO 14006KT 10SM FEW049
17/07 A3018 RMK A01

The corresponding OMOs are as follows:

AWOS/ASOS ID: OTIS AWOS/ASOS CFG NO: A240
DATE:97/10/14 TIME: 20:47:00 ALERT
STATUS:
Tstorm Beg: No Funnel: No Snow Beg: No
NonSpecBeg:No Tstorm End: No Spout: No Snow
End: No NonSpecEnd:No Tstorm Inc: No
LIGHTNING ACTIVITY: Special, Status, 0-5, 5-10:
0x41 8 Sectors
10-30: 0x0
SITE STATUS:
Operator: No Test Mode: No Manual Msg: No Suspect
Data: No
SENSOR/DATA STATUS:
Wind Speed: 0 Ceiling Accum: 0 RVR: 2

AUTOMATED REMARKS:
Var visibility: No Var Wind: No Var ceil/sky: No
Lightning: No

OPERATOR REMARKS:

and also:

AWOS/ASOS ID: OTIS AWOS/ASOS CFG NO: A240

ALDARS PTR DETAILED REPORT - ALL

DATE:97/10/14 TIME: 21:02:00 ALERT
STATUS:
Tstorm Beg: No Funnel: No Snow Beg: No
NonSpecBeg:No Tstorm End: No Spout: No Snow
End: No NonSpecEnd:No Tstorm Inc: No
LIGHTNING ACTIVITY: Special, Status, 0-5, 5-10: 0x1
8 Sectors
10-30: 0x0
SITE STATUS:
Operator: No Test Mode: No Manual Msg: No Suspect
Data: No
AUTOMATED REMARKS:
Var visibility: No Var Wind: No Var ceil/sky: No
Lightning: No

OPERATOR REMARKS:

Based on ICD Table 90-6, I believe that there should have been a remark "TSBhhmmEmm" for the SPECI at 2102Z. Although OTIS did not send any Thunderstorm Begin or End indications in the Alert Data field (PTR OTE-036), that should be irrelevant since ADAS is supposed to use Octets 57 and 58 as the source of TSBhhmmEmm remarks.

You can find this information and other examples of this in al-02c-4.cap.

Let me know if you need any more info.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-011
PTR Title	ADAS Shutdown Failure
PTR Open	☐
PTR Accepted	☑
Discover Date	8/27/97
Failure Category	System
Criticality	Critical
Originator	Stratton
Location	ADAS PSF
Software Version	4.18 / 3.12
Related PTRs	PTR-004
Affected Reqs	
Discrepancy Discription	Test OP-01: When ADAS shutdown request is issued at the ASC while the IPS test was running, the AUC indicated a graceful shutdown request, but the ADAS did not shutdown. After the request was issued, pongs 1-4 closed and re-round, after the 'stop_adas' command was issued at the AUC, pongs 5-A closed and rebound. When the ASC shutdown request was issued after termination of the IPS test, the ADAS promptly shutdown.
Recommendation	DME needs to investigate the problem. Symptoms indicate this is a problem resulting from the new IPS X.25 simulators added to the OSI stack. The IPS PQAD upgrade has induced numerous errors in IPS operation and ADAS/IPS communication. The FAA needs to acquire from the engineering data related to add adding additional pongs(pings) to the OSI stack from DME. The FAA then needs to determine the best way to have the IPS problems fixed. DME has determined that a table ADAS accesses to perform a graceful shutdown need to be updated with the ITWS process names. 11/25/97 - DGG At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.
Action Taken	ADAS OT&E Regression Testing demonstrates that this

problem has been fixed.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-012
PTR Title	Thunderstorm Begin/End Timestamp Error for Metars
PTR Open	☐
PTR Accepted	☑
Discover Date	8/28/97
Failure Category	Software
Criticality	Critical
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	
Discrepancy Discription	While running AL-09 test (version 2), noticed that the ADAS-generated METAR/SPECI messages had conflicting time information for the Thunderstorm Begin/End Automated Remarks. The time stamp placed at the beginning of the METAR/SPECI was 2 minutes earlier than when the Automated Remark indicated that the Thunderstorm Begins or Ends. Here is a sample of what was observed and recorded. SPECI OTIS 281323Z ----------- TSB25 This is rather contradictory. The observation was taken at 23 minutes past the hour and yet it indicates that the Thunderstorm began at 25 minutes past the hour. This is a critical problem since credibility of the information will be raised by the users with such a contradiction.
Recommendation	DME needs to fix the software so that the correct time is used for Thunderstorm Begin/End remarks. 11/25/97 - DGG At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.
Action Taken	2/24/98 - DGG Data from OT&E #2 al-02c-1.cap verifies that the time stamps are synchronized, therefore this PTR is closed.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-013
PTR Title	Delayed LAD Message Generation
PTR Open	☐
PTR Accepted	☑
Discover Date	9/2/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	ADAS Spec 3.1.4.2.3.2

Discrepancy Discription

During analysis of data for test AL-09 (run 4) a delay in the generation of the LAD message was discovered. Review of the NLDN data (using the Flash Retrieve option on the NLDN system) indicated that a single flash within the 0 - 5 nm area around the AWOS occurred at 14:50:46. However, the corresponding LAD message was not generated until 14:52:02 (as indicated in the IPS AWOS LAD message file). This violates the requirement in ADAS Spec 3.1.4.2.3.2 which states "lightning activity data stored for the previous elapsed minute shall be processed during a distinct, synchronous phase of the ADAS 1-minute clock cycle. ----- SLAP processing shall consist of --- construction of exactly one LAD message per minute every minute for each AWOS currently configured---."

Note: At the beginning of this test, the IPS and ADAS clocks were synchronized to the NLDN system time.

Recommendation

DME needs to investigate why lightning data is not processed according to this requirement.

Action Taken

9/2/97 DGG

This PTR was closed. After conversation with GAI folks, I learned that although a flash is marked with the time the flash occurred, the NLDN display (and ADAS) does not receive the LDD until approximately 30 seconds later. As a result, ADAS didn't get the flash from 14:50:46 until approx. 14:51:26 and therefore the LAD from 14:52:02 would be

correct.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-014
PTR Title	Event type 49 Notification
PTR Open	☑
PTR Accepted	☑
Discover Date	09/02/97
Failure Category	Software
Criticality	Moderate
Originator	Stratton
Location	ADAS PSF
Software Version	4.18 / 3.12
Related PTRs	
Affected Reqs	
Discrepancy Discription	Test OP-13 (Normal Event Logging) is designed to trigger multiple event types 21 & 49. An event log report for event type 49 returned a failure response indicating the Event Log contained no event type 49 entries. ADAS should trigger an event type 49 every time it generates a SPECI message. Test data shows ADAS generated 9 SPECI msgs during the test, 8 of which were generated prior to the event log report request. 11Nov97 DME indicated the s/w was change to not record an event type 49 after discussions with John Winkler.
Recommendation	DME needs to analyze error and update the software. ACT-320 should be provide with documentation authorizing event type 49's no longer be trigger. 2/27/98 - DGG/JKS Upon further investigation of this PTR and with consultation with AOS-500, ACT-320 recommends that this PTR be reopened since: 1) There is no explicit requirement in the ADAS Spec to not include METAR message generation as an event in the event log; 2) ADAS System Specification (FAA-E-2804 rev. D) paragraph 3.1.4.3.1.3 Implicitly implies that Metar message generation should generate and log an event into the System Event Log; 3) AOS-500 believes that instead of permanently disabling event type 49 generation, the addition of a single-bit field to

the adaptation database event_type record to provide the ability to enable/disable the generation/logging of each event type individually would allow AOS to enable event type 49 event generation as needed for field support. An enable disable bit would also allow the disabling of other high frequency events (such as 15, 35, or 36).

4/9/98 - DGG
On 4/7/98 telecon with AUA, AOS and ACT it was decided that ADAS should record event type 49.

It was agreed by AOS, AUA and ACT during telcon on 4/8 that AOS would take care of implementing this software change and any necessary documentation changes. AOS was planning to implement this as part of the Deployment ADAS build on 4/23/98.

Action Taken

11/26/97 - DGG
DME PCR #266 was written and indicates that they were directed to remove the logging of event type 49 because there is no requirement for this event type to be logged. This PTR is closed. See attached PCR.

2/27/98 - DDG / JKS #### PTR Re-OPENED ####
PTR Re-OPENED: Examination of the ADAS System Specification (FAA-E-2804 rev. D) ,with respect to system event logging (para. 3.1.4.3.1.3), indicates that AUA & DME are correct in stating there is no explicit requirement to generate event type 49 (et49) events, the system logging paragraph implicitly et49 event generation and logging.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-015
PTR Title	Missing xxxNO Remarks in SPECIs
PTR Open	☑
PTR Accepted	☑
Discover Date	9/11/97
Failure Category	Documentation
Criticality	Moderate
Originator	AUA
Location	Ken Kraus
Software Version	4.18
Related PTRs	
Affected Reqs	ADAS/AWOS ICD Par 90.2.4

Discrepancy Discription

Upon analysis of Metar data from 8/21 to 8/25/97 (filename OTIS_ARC.W51) Ken Kraus found that in the remarks section RWINO FZRNO and RVRNO were generated for AO1 sites. However, these remarks only appeared in METARs not SPECIs. According to ICD these "xxxNO" remarks should be included in both METARs and SPECIs.

Another aspect of this PTR is whether the "xxxNO" remarks were correctly being generated. The AWOS format messages will have to be analyzed to determine if the proper fields/bits were set in order to justify these remarks in the Metars.

Recommendation

DME needs to incorporate these remarks for SPECIs as well as METAR messages. (Or possibly, based on investigation of AWOS format messages, the METAR should not have included these "xxxNO" remarks.)

11/07/97 DGG
Based on conversations on 10/16/97 with AUA, DME and TSC, AUA needs to work with John Winkler to update the ICD.

11/25/97 - DGG
At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.

Action Taken

2/25/98 - DGG
Based on tests performed by DME at DT&E #2 this PTR has been verified as corrected and therefore the PTR is closed.

ALDARS PTR DETAILED REPORT - ALL

4/9/98 - DGG
This PTR was reopened. This was based on changes made to the ADAS/AWOS ICD. These changes will result in AWOS AO1 type stations to not generate PWINO, FZRNO, and RVRNO remarks. The following ICD par were changed 90.2.4.3.8., .9, .11; 90.3.2.12.1.1.A.2; 90.3.2.12.3.8, .9, .11

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-016
PTR Title	DISPLAY ITWS COMM. CHAR.
PTR Open	☑
PTR Accepted	☑
Discover Date	9/12/97
Failure Category	Software
Criticality	Moderate
Originator	Vuong
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	
Discrepancy Discription	The ITWS SI screen, "Display ITWS communications LU Datapoints", does not indicate the ITWS site number. It is confusing to a specialist operator who analyzes the data.
Recommendation	DME needs to modify the display to include the site number for ITWS(s). 11/7/97 HHV AUA needs to create a requirement for DME implementation. 11/26/97 - DGG At the PMR DME agreed that they would fix this problem for the Y2K build. The fix will be similar to the fix necessary for the AWOS SI screen problem, i.e.. they will include the ITWS # on the SI display.
Action Taken	
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-017
PTR Title	SI crashes when trying to view restored maintenance log data.
PTR Open	☐
PTR Accepted	☑
Discover Date	9/14/97
Failure Category	Software
Criticality	Moderate
Originator	Stratton
Location	ADAS PSF
Software Version	4.12 / 3.18
Related PTRs	OTE-018
Affected Reqs	
Discrepancy Discription	During the ADAS/ALDARS OT&E/Regression Test FORMAL TEST RUN (FTR) of DT&E Test 180 (D25-01), the Specialist Interface crashed when a "Display Restored Maintenance Data" request is made, with the ASC displaying "C-scape: Error Number 74 in menu.Printf()9." followed by a login prompt. [NOTE: The data entered in Steps 4.1.27.6.15 & 16 was not identical to the data to be entered indicated within those steps. A variation of data entered should not cause the SI to crash unless there is a serious problem with the ADAS SI code and/or the C-scape utilities.] JKS 11Nov97 - Test 180 was re-run without the error occurring. ACT-320 has been unable to reproduce the error under any circumstances.
Recommendation	DME needs to det'm the cause of the C-scape error and encode an error handling routine into the SI software. (Not Reproducible) JKS 11Nov97 - AOS shall be alerted to the singular occurrence of this problem during OT&E, and be advised by ACT to be alert for possible future occurrences. The problem cannot be identified until it can be reliably reproduced.
Action Taken	11/26/97 - DGG Since this PTR could not be repeated it has been closed. AOS has been notified of this anomaly.
Notes	See PTR OTE-018 "Notes" block.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-018
PTR Title	Specialist unable to Login to SI at ASC.
PTR Open	☐
PTR Accepted	☑
Discover Date	9/14/97
Failure Category	Software
Criticality	Moderate
Originator	Stratton
Location	ADAS PSF
Software Version	4.18 / 3.12
Related PTRs	OTE-017
Affected Reqs	
Discrepancy Discription	During the ADAS/ALDARS OT&E/Regression Test FORMAL TEST RUN (FTR) of DT&E Test 180 (D25-01), the Specialist Interface crashed when a "Display Restored Maintenance Data" request is made, with the ASC displaying "C-scape: Error Number 74 in menu.Printf()9." followed by a login prompt. If the specialist logs back in and re-issues the request, the SI crashes again, displays the same error followed by the login prompt, but the specialist is unable to log back in to the SI unless a process was killed to induce an ADAS auto-restart. (As the value of the Test Cfg adb variable "Max Specialists" was set to 2, it seems ADAS incremented the # of specialists logged in properly, but failed to note the SI crash and did not decrement the value, causing the specialists inability to login after the 2nd crashing of the SI.) JKS 11Nov97 - Test 180 was re-run and the problem did not occur. ACT has been unable to reproduce this problem under any circumstances. This problem cannot be defined, let alone fixed, unless it is reproducible.
Recommendation	DME needs to det'm why the specialist cannot login and correct the software as needed. (Not Reproducible) JKS 11Nov97 - AOS shall be alerted to the singular occurrence of this problem during OT&E, and be advised by ACT to be alert for possible future occurrences. The problem cannot be identified until it can be reliably reproduced.

ALDARS PTR DETAILED REPORT - ALL

Action Taken

11/26/97 - DGG
Since this PTR could not be repeated it has been closed.
AOS has been notified of this anomaly.

Notes

PTR data collected on the ADAS:

grabbed $l/*, $d/MP/ludp.wf, $d/SL/*, $d/WD/*, $d/WS/*, $d/LHT/*

prior to inducing a re-start ('Setlog 40' command issued prior to restart); after the restart: after the 1st crash; and again after the 2nd crash (Same state as prior to restart.)

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-019
PTR Title	Erroneous WSHIFT Remarks
PTR Open	☐
PTR Accepted	☑
Discover Date	9/16/97
Failure Category	Software
Criticality	Moderate
Originator	AUA
Location	Ken Kraus
Software Version	4.18
Related PTRs	OTE-020
Affected Reqs	ADAS/AWOS ICD par 90.2.3.2.5
Discrepancy Discription	Paragraph 90.2.3.2.5 of the ADAS/AWOS ICD states that two of the criteria for a wind shift are if the current wind direction and previous wind direction are 45 degrees or more apart and that all AWOS average wind speeds for the past 15 minutes are 10 or more knots. Examination of the data for OTIS AWOS SPECIs on 8/30 indicate that these criteria were not met. The times where the problem was observed are 1613, 1615, 1618, 1623, 1626, 1629, 1634, etc. The data has been saved in a file named otis-ptr.doc.
Recommendation	DME needs to fix the software to correctly report wind shifts.
Action Taken	9-29-97 DGG This PTR has been closed since the ADAS configuration file had been set to 6 knots or less for WSHIFT Remarks. Therefore the WSHIFT remarks were correct.
Notes	File otis-ptr.doc contains the data to support this PTR.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-020
PTR Title	Erroneous "WSHIFT -2" Remark
PTR Open	☐
PTR Accepted	☑
Discover Date	9/16/97
Failure Category	Software
Criticality	Moderate
Originator	AUA
Location	Ken Kraus
Software Version	4.18
Related PTRs	OTE-019
Affected Reqs	ADAS/AWOS ICD par 90.3.2.12.1.2.3
Discrepancy Discription	During examination of 8/30/97 OTIS data, at 2011 and 2058 the remark "WSHIFT -2" was reported. This is not in accordance with the ICD paragraph noted above.
Recommendation	DME needs to investigate why this erroneous wind shift remark was generated 11/25/97 - DGG At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.
Action Taken	2/25/98 - DGG Based on tests performed by DME at DT&E #2 this PTR has been verified as corrected and therefore the PTR is closed.
Notes	File otis-ptr.doc contains the support data for this PTR.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-021
PTR Title	ASOS SPECI generation for thunderstorm
PTR Open	☐
PTR Accepted	☑
Discover Date	9/16/97
Failure Category	Documentation
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	ADAS/AWOS ICD: par 90.3.2.12.1.5.3 par 10.3.15.1

Discrepancy Discription

Review of the ASOS SPECI messages indicated that the SPECI message generated as a result of a simulated thunderstorm did not correspond to the LAD messages sent by ADAS. Discussions with SMI engineer revealed that ASOS waits an adaptable amount of time (between 2 and 6 minutes) before submitting a SPECI. ADAS/AWOS ICD par 10.3.15.1 states that the ASOS is exempt from using Octet 57, Bit 0 to determine if there is to be generation of a SPECI message and that the ASOS can make its own determination as to when to generate a SPECI. Further, par 90.1.1 states that ASOS is exempt from the SPECI and METAR generation criteria outlined in the ADAS/AWOS ICD section 90. This creates a contradiction in the criteria used to generate SPECIs and METARs for AWOS and ASOS. This represents an operational risk since a SPECI and METAR message can have different meaning depending on the site (i.e.. whether AWOS or ASOS). As discovered during OT&E the exact same information sent to a live AWOS and live ASOS results in different METAR and SPECI messages being generated.

However, no where is the criteria defined for ASOS SPECI generation. In fact, contradictions occur later in the document when in par. 90.3.2.12.1.5.3 the ICD indicates that "Table 90-6 also indicates when special reports (SPECI) are generated because the begin/end of these conditions are considered critical weather events." Examination of Table

ALDARS PTR DETAILED REPORT - ALL

90-6 reveals that TSBxx and TSExx are considered "critical weather events" and as a result ASOS should generate a SPECI when the source data (Octet 57, bits 6 and 7 and Octet 58, bits 0 through 7) indicates lightning activity.

Recommendation There needs to be consistent, equal criteria established for the generation of METAR and SPECI messages for the ASOSs and AWOSs.

Action Taken 10-1-97 DGG

This PTR was closed since PTR OTE-029 was more complete in describing the problem.

Notes File al-02b-2.cap contains the data to support this PTR.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-022
PTR Title	Erroneous PRESFR/PRESRR Remark
PTR Open	☑
PTR Accepted	☑
Discover Date	9/16/97
Failure Category	Software
Criticality	Major
Originator	AUA
Location	Ken Kraus
Software Version	4.18
Related PTRs	OTE-023
Affected Reqs	ADAS/AWOS ICD par 90.2.4.1.6
Discrepancy Discription	Examination of 8/21/97 OTIS data at 1658, 1858, 1959, 2058, etc. indicated a Pressure Falling Rapidly (PRESFR) remark. Data for 8/22/97 at 0958 indicated a Pressure Rising Rapidly (PRESRR) remark. However, the criteria of a pressure change of more than 0.025 inHg was not attained for these remarks.
Recommendation	DME needs to fix the code to correctly determine a PRESFR/PRESRR condition. 11/07/97 DGG AUA & TSC still need to investigate this problem to determine if it needs to be corrected. 11/26/97 - DGG This PTR was upgraded to major at the PMR. It was determined that since it was still uncertain what the problem was and that there was question about the Federal Standard Algorithms that were used, that the PRESRR and PRESFR should be removed from build 4.19. This will require DME to remove from the software. The FAA will continue to investigate how this should be implemented for the Y2K build.
Action Taken	2/25/98 - DGG This PTR was addressed in Build 4.19 as stated in the recommendation section by eliminating the PRESRR and PRESFR from the remarks. This was tested at DT&E #2 and

was found to be implemented correctly. However, the PTR will not be closed pending the final solution as dictated by AUA decision. The AUA decision will be implemented in the Y2K Build.

4/9/98 - DGG
During the ACT, AUA, AOS telecon on 4/8, Joe Gibson informed ACT that the appropriate algorithm necessary for PRESFR/PRESRR remarks had not been identified. Therefore, the resolution of this PTR was yet to be determined.

Notes

The file otis-ptr.doc contains the data to support this PTR.

9/18/97 DGG
Talked to John Winkler. He stated that you need to look at previous 80 minutes of data to make this determination since PRESRR and PRESFR remarks only come out with hourly METAR (even if METARs are scheduled less than every hour). Although PTR is not closed it is uncertain if it is valid at this time.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-023
PTR Title	Erroneous Ceiling SPECIs
PTR Open	☐
PTR Accepted	☑
Discover Date	9/17/97
Failure Category	Software
Criticality	Moderate
Originator	AUA
Location	Pete Kirchoffer
Software Version	4.18
Related PTRs	
Affected Reqs	ADAS/AWOS ICD par 90.2.3.2.1
Discrepancy Discription	Examination of 8/30/97 OTIS data revealed a number of Ceiling SPECIs that were erroneously reported. These SPECIs did not meet the criteria as defined in ADAS/AWOS ICD par 90.2.3.2.1.
Recommendation	DME needs to fix the software so that Ceiling SPECIs are only generated for the defined requirements.
Action Taken	9/18/97 DGG John Winkler gave clarification that because of settings in config file 82 these SPECIs were valid. Therefore PTR was closed.
Notes	Pete Kirchoffer sent to ACT-320 3 pages of "marked up" Metar messages. These "marked up" pages indicate which SPECIs were incorrectly generated. These pages are on file with ACT-320. The 3 pages cover a time frame from 300158 to 301221. The data for this time frame are stored in file otis7i01.w51.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-024
PTR Title	Erroneous Visibility SPECIs
PTR Open	☐
PTR Accepted	☑
Discover Date	9/17/97
Failure Category	Software
Criticality	Moderate
Originator	AUA
Location	Pete Kirchoffer
Software Version	4.18
Related PTRs	
Affected Reqs	ADAS/AWOS ICD par 90.2.3.2.3
Discrepancy Discription	Examination of 8/30/97 OTIS data revealed a number of Visibility SPECIs that were erroneously reported. These SPECIs did not meet the criteria as defined in ADAS/AWOS ICD par 90.2.3.2.3.
Recommendation	DME needs to fix the software so that Visibility SPECIs are only generated for the defined requirements.
Action Taken	9/18/97 DGG John Winkler gave clarification that because of settings in config file 82 these SPECIs were valid. Therefore PTR was closed.
Notes	Pete Kirchoffer sent to ACT-320 3 pages of "marked up" Metar messages. These "marked up" pages indicate which SPECIs were incorrectly generated. These pages are on file with ACT-320. The 3 pages cover a time frame from 300158 to 301221. The data for this time frame are stored in file otis7i01.w51.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-025
PTR Title	Missed Zone 1 strikes
PTR Open	☐
PTR Accepted	☑
Discover Date	9/19/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-026 and OTE-027
Affected Reqs	ADAS Spec par 3.1.4.2.3.1.3(c)
Discrepancy Discription	Test AL-02A. Analysis of LAD messages for this test revealed that lightning strikes, at minutes 34 and 50, located 5nm and direction 270 degrees from ARP did not result in the Zone 1 bit being set. However, lightning strikes, at minutes 66 and 82, located at 5nm and direction 0 degrees from ARP and a lightning strike, at minute 98, located 5nm and direction 90 degrees from ARP did result in the Zone 1 bit being set.
Recommendation	DME needs to investigate why these Zone 1 lightning strikes did not get processed properly. 11/07/97 DGG Based on 10/16/97 tel con, DME will investigate to ensure that this is a precision problem and nothing more. If it is only a precision related problem, then this PTR will be closed.
Action Taken	11/26/97 - DGG DME provided data to show that this problem is a small rounding error that at certain directions causes lightning to be calculated as falling just outside of the zone/sector that the IPS script file indicates. Therefore this PTR is closed. (See attached data)
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-026
PTR Title	Missed Zone 2 strikes
PTR Open	☐
PTR Accepted	☑
Discover Date	9/19/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-025 and OTE-027
Affected Reqs	ADAS Spec par 3.1.4.2.3.1.3(c)
Discrepancy Discription	Test AL-02A. Analysis of LAD messages for this test revealed that lightning strikes, at minutes 66 and 82, located 10nm and direction 270 degrees from ARP did not result in the Zone 2 bit being set. However, lightning strikes, at minutes 34 and 50, located at 10nm and direction 180 degrees from ARP and a lightning strike, at minute 98, located 10nm and direction 0 degrees from ARP did result in the Zone 2 bit being set.
Recommendation	DME needs to investigate why these Zone 2 lightning strikes did not get processed properly. 11/07/97 DGG Based on 10/16/97 tel con, DME will investigate to ensure that this is a precision problem and nothing more. If it is only a precision related problem, then this PTR will be closed.
Action Taken	11/26/97 - DGG DME provided data to show that this problem is a small rounding error that at certain directions causes lightning to be calculated as falling just outside of the zone/sector that the IPS script file indicates. Therefore this PTR is closed. (See attached data)
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-027
PTR Title	Missed Zone 3 strikes
PTR Open	☐
PTR Accepted	☑
Discover Date	9/19/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-025 and OTE-026
Affected Reqs	ADAS Spec par 3.1.4.2.3.1.3(d)
Discrepancy Discription	Test AL-02A. Analysis of LAD messages for this test revealed that lightning strikes, at minutes 50 and 82, located 30nm and at directions 22, 112, 113, 157, 202, 203, 247, 248, 337, and 338 degrees from ARP did not result in the appropriate Zone 3 sector bits being set. However, lightning strikes, at these same minutes, located at 30nm and directions 23, 67, 68, 158, 292, and 293 degrees from ARP did result in the appropriate Zone 3 sector bits being set.
Recommendation	DME needs to investigate why these Zone 3 lightning strikes did not get processed properly. 11/07/97 DGG Based on 10/16/97 tel con, DME will investigate to ensure that this is a precision problem and nothing more. If it is only a precision related problem, then this PTR will be closed.
Action Taken	11/26/97 - DGG DME provided data to show that this problem is a small rounding error that at certain directions causes lightning to be calculated as falling just outside of the zone/sector that the IPS script file indicates. Therefore this PTR is closed. (See attached data)
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-028
PTR Title	ASOS 15 Minute Persistence
PTR Open	☐
PTR Accepted	☑
Discover Date	9/29/97
Failure Category	Other
Criticality	Critical
Originator	Groot
Location	ADAS PSF
Software Version	ASOS ver ???
Related PTRs	
Affected Reqs	
Discrepancy Discription	Analysis of ADAS/ASOS test AL-02C revealed that the ASOS maintains a 15 minute buffer for lightning independent of ADAS. The result was that when actual lightning strikes ceased and the ADAS continued to send LADs indicating "persistence strikes", ASOS treated these "persistence strikes" as "actual strikes". Therefore, when the ADAS 15 minute persistence ended, ASOS then started their persistence timer and continued to reflect lightning in the OMOs and Metar messages for an additional 15 minutes.
Recommendation	Discussions have already occurred between ACT-320, NWS and SMI. SMI plans to have fixed the ASOS software sometime in October.
Action Taken	10/22/97 DGG This PTR is closed. Test run AL-02C-4 indicated that this problem had been corrected in the ASOS software by SMI. However, with the resolution of this problem another problem was discovered and is recorded in PTR OTE-037.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-029
PTR Title	Discrepancies in Metar Message Generation Criteria
PTR Open	☑
PTR Accepted	☑
Discover Date	9/29/97
Failure Category	Software
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	
Related PTRs	
Affected Reqs	
Discrepancy Discription	Analysis of live ADAS/ASOS/AWOS testing revealed that there are discrepancies between the way the AWOSs and ASOSs generate Metar messages. The following are two known discrepancies that exist: 1. ASOS does not generate TSBxx/TSExx for lightning outside of 10 nm. AWOS does (Note: even after the proposed changes are made to ADAS, for no SPECIs outside of 10nm, it does not appear that the issuance of <10nm to 30nm TSBxx/TSExx remarks has been addressed). 2. ASOS generates SPECIs at a site specific amount of minutes once a LAD is received indicating lightning from 0 to 10 nm. ADAS generates SPECIs immediately when the OMO from AWOS indicates the SPECI bit is set. The problem lies in the ADAS/AWOS ICD paragraphs 10.3.15.1 and 90.1.1 which allows ASOS to set their "own rules" for METAR and SPECI message and TSBxx/TSExx remarks generation. This represents an operational risk since SPECI and METAR messages can have different meaning depending on the site (i.e.. whether AWOS or ASOS). As discovered during OT&E the exact same information sent to a live AWOS and live ASOS results in different METAR and SPECI messages being generated.
Recommendation	These discrepancies need to be resolved and consistent criteria established so that all sites (AWOS and ASOS) will generate METAR and SPECI messages and TSBxx/TSExx remarks under the same conditions. At present, the differing criteria pose an operational risk since METAR/SPECI

generation and TSBxx/TSExx remarks have different meanings depending on the type of site.

11/07/97 DGG
AUA has the action to determine how to handle discrepancy 1. above. As the current ICD changes stand, this issue is not being addressed.

11/26/97 - DGG
At the PMR it was determined that AUA needs to update the ICD to have TSB/TSE only issued for strikes in the 0 - 10 nm range. Once this change is made DME will be directed to make the necessary software changes (for the Y2K build) to reflect these ICD changes.

Action Taken

11/26/97 - DGG
For item 2. AUA indicated that this discrepancy is not a problem and no action needs to be taken.

2/25/98 - DGG
Item 1. still remains open and AUA needs to modify the ICD and then direct DME what changes to make for the Y2K build.

4/9/98 - DGG
AUA has made the appropriate ICD change to section 90.3.2.12.1.5.2. DME will be directed to make the software changes for the Y2K build.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-030
PTR Title	AWOS Station LAD Enable Edit Adaptation Error
PTR Open	☐
PTR Accepted	☑
Discover Date	9/29/97
Failure Category	Software
Criticality	Critical
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	DME PCR 285 PTR OTE-007
Affected Reqs	
Discrepancy Discription	While performing live ADAS/ASOS testing, tried to EDIT and INSTALL changes to the LAD Enable/Disable for the live ASOS, KSMI. These changes did not take affect, although with both EDIT and INSTALL screen displayed "success".
Recommendation	DME needs to fix this problem so that all AWOS/ASOS EDIT and INSTALL options work properly. 11/25/97 - DGG At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.
Action Taken	2/24/98 DGG This PTR was verified as fixed during tests for AL-09, therefore this PTR is closed.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-031
PTR Title	Missing "LTG DATA MISG" Remark
PTR Open	☐
PTR Accepted	☑
Discover Date	9/30/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-008
Affected Reqs	ADAS/AWOS ICD Par 90.3.2.12.1.4.2
Discrepancy Discription	Analysis of data for test AL-08 revealed that the LTG DATA MISG remark was not incorporated into the METAR message. At 13:31 the cable to the NLDN controller was disconnected. At 13:44 the OTIS OMO included a LTG DATA MISG remark in Field 22 and Field 21 (Octet 68), bit 3 was also set. OTIS continued to send this remark in each OMO up to and including the 14:04 OMO. However, the METAR at 14:00 did not include the LTG DATA MISG remark. This is in violation of ADAS/AWOS ICD Par 90.3.2.12.1.4.2. 11/05/97 DGG This problem is probably the same problem that is causing OTE-008. The LTG DATA MISG remark is listed in the DLP AWOS file under OPERATOR REMARKS but it has the "!" after it so that would constitute ADAS interpreting as an AUTOMATED REMARK. This would make it necessary for DME to fix not AWOS. 11/25/97 - DGG The problem is that a space has been added to the automated lightning remarks and therefore when ADAS code checks oct 69 and finds it blank it assumes no auto remarks.
Recommendation	DME needs to fix software to include LTG DATA MISG in the remarks field. 11/07/97 DGG

As described above this is probably a ADAS problem not an AWOS problem and therefore DME needs to provide a fix.

11/25/97 - DGG
Although the problem resides with the AWOS adding in a blank space at oct 69, the solution will be to update the ICD and then have DME change code to allow for blank space in oct 69 but still get the auto lightning remarks. This will be addressed in build 4.19.

Action Taken

2/24/98 - DGG

Data from OTE #2 al-02c-1.cap verifies that OTIS remarks are in the SPECIs, therefore this PTR is closed.

4/9/98 - DGG
ICD par 10.3.20 was modified to complete the resolution of this PTR.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-032
PTR Title	No TSEmm After The Hour
PTR Open	☐
PTR Accepted	☑
Discover Date	9/30/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-010
Affected Reqs	ADAS/AWOS ICD Par 90.3.2.12.1.5.3, Table 90-6
Discrepancy Discription	During AL-xx tests, when there was a TSBmm that began before the hour and ended after the hour a TSBhhmmTSEmm was not generated. Test AL-02C has some specific cases of this problem.
Recommendation	DME needs to fix the software to properly generate this remark. 11/25/97 - DGG At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.
Action Taken	2/24/98 - DGG This PTR was fixed as verified by data in al-02c-1.cap and therefore this PTR is closed. However, a new, related problem occurred during testing and therefore PTR OTE-052 was generated.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-033
PTR Title	Error Setting LAD Availability Bit
PTR Open	☑
PTR Accepted	☑
Discover Date	10/1/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-034
Affected Reqs	ADAS/AWOS ICD par 30.3.2.2

Discrepancy Description

At 13:31 during test AL-08 the cable to the NLDN controller was disconnected. It wasn't until 13:44 that the OTIS OMO indicated that lightning was unavailable. This was a result of ADAS not setting the LAD availability bit (i.e.. NLDN is not available) until 15 minutes after the NLDN was disconnected. This is in violation of the ICD par 30.3.2.2 which states that the availability bit "shall indicate the current availability of lightning information to AWOS".

2/10/98 - DGG
See OTIS METAR for 18:00 in al-10-2.cap for OT&E #2 for example of contradictory TSBxx and TSNO/LTG DATA MISG remarks in same message.

Recommendation

DME needs to fix software so that when the lightning data is no longer available the availability bit gets set immediately to "indicate the current availability of lightning information".

11/07/97 DGG
Based on phone conversations on 10/16/97 with DME this PTR was going to be closed since the 15 minute persistence could be considered "current availability". However, when DME submitted there summary of the 10/16/97 conference call they had listed this PTR as DME needing to provide a fix. Need to check with DME as to the status of this PTR.

11/26/97 - DGG
AUA is looking into the correct way to implement this. At PMR AUA indicated that the TSNO should take precedence

whenever the ADAS stops receiving lightning data from the NLDN. Therefore, if a lightning remark or TSB is still within a 15 minute persistence window and the ADAS stops receiving lightning for 2 consecutive minutes, then TSNO should be issued and all lightning remarks and TSB should be removed. Once AUA resolves, they'll give DME direction on how to implement fix for the Y2K build. Even though this is a Major PTR it will not be resolved till the Y2K build.

Action Taken

4/9/98 - DGG
The spec has been updated to correspond to the recommended change. Spec par changed was 3.1.4.2.3.2.5.3

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-034
PTR Title	Contradictory TSBmm and TSNO Remarks
PTR Open	☑
PTR Accepted	☑
Discover Date	10/1/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-033
Affected Reqs	ADAS/AWOS ICD Par 90.3.2.12.1.5.2.(a) Par 90.3.2.12.3.10.1
Discrepancy Discription	The METAR at 14:00 in test AL-08 contained a TSB23 and a TSNO remark. Since the source data for these two remarks is Octets 57/58, it is incorrect to have these two remarks present in the same message. 2/10/98 - DGG See OTIS METAR for 18:00 in al-10-2.cap for OT&E #2 for example of contradictory TSBxx and TSNO/LTG DATA MISG remarks in same message.
Recommendation	DME needs to fix the software so that these remarks are properly generated. 2/10/98 - DGG As with PTR OTE-033, AUA needs to give DME direction on how to best handle this PTR for the Y2K build.
Action Taken	11/05/97 DGG This PTR was closed since these messages are consistent with what the user's want and with the requirements. 2/10/98 - DGG While reviewing PTR OTE-033, realized this PTR should never have been closed since it relates directly to the same problem of contradictory remarks. 4/9/98 - DGG

ALDARS PTR DETAILED REPORT - ALL

The ICD has been changed in par 90.3.2.12.1.5.3 and also in 90.3.2.12.1.4.3. These changes will be consistent with recommendation in OTE-033.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-035
PTR Title	"THROUGH" Instead of "-" in ASOS Lightning Remarks
PTR Open	☐
PTR Accepted	☑
Discover Date	10/6/97
Failure Category	Software
Criticality	Minor
Originator	Groot
Location	ADAS PSF
Software Version	ASOS
Related PTRs	
Affected Reqs	ADAS/AWOS ICD Par 10.3.20.1 Par 30.3.3 Table 30-3
Discrepancy Discription	Analysis of data for AL-02B-2 revealed that the ASOS OMO used "THROUGH" in the lightning remarks instead of the ICD directed "-". For example, the OMO at 18:07:00 had the following remark "LTG DSNT S THROUGH W". The remark should have read "LTG DSNT S - W".
Recommendation	ASOS software needs to be corrected to use the "-" instead of "THROUGH" in lightning remarks.] 11/26/97 - DGG This PTR will be verified as corrected during ASOS SAT ADAS/ASOS testing the week of Dec 1.
Action Taken	12/05/97 - DGG Reviewing the data for al-02b-3-sp1.doc revealed that the "THROUGH" has been removed and has been replaced with a "-". Therefore, this PTR is closed.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-036
PTR Title	No Tstorm Beg or Tstorm End in
PTR Open	☐
PTR Accepted	☑
Discover Date	10/7/97
Failure Category	Software
Criticality	Minor
Originator	Groot
Location	ADAS PSF
Software Version	AWOS
Related PTRs	
Affected Reqs	ADAS/AWOS ICD Par 10.3.4
Discrepancy Discription	Analysis of live AWOS (OTIS) OMO data for test AL-02B revealed that the Alert Data bits corresponding to Tstorm Beg and Tstorm End were never set. Can also find examples of problem in AL-09 data.
Recommendation	The AWOS software needs to be modified to correctly report this information. 11/26/97 - DGG Since AWOS is not required to set these bits and since this information is never used as source data for any Metar fields this PTR should be closed. The only remaining issue is whether or not the ICD needs to be updated so that the ITWS and/or WARP projects don't attempt to use this information.
Action Taken	2/24/98 DGG Since there is no requirement that this information be set by the AWOS, the PTR is being closed. Although it was noted at the PMR that the ICD should indicate this so that the ITWS and WARP programs are aware of this, AUA decided not to change the ICD. 4/9/98 - DGG AUA did change the ICD in par 10.3.4
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-037
PTR Title	ASOS Erroneous "LTG DATA MISG" Remarks
PTR Open	☐
PTR Accepted	☑
Discover Date	10/21/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	ASOS
Related PTRs	
Affected Reqs	ADAS/AWOS ICD par par 30.4.1.©
Discrepancy Discription	Analysis of data for test AL-02C-4 revealed numerous "LTG DATA MISG" remarks in the live ASOS OMOs. These remarks were not consistent with the LAD messages sent out by ADAS and the live AWOS OMOs did not contain these remarks.

10/22/97 DGG

The basic purpose of the test was to check all the zones/sectors 15 minute persistence. One lightning strike, for a particular zone or sector, was generated at time, t and ADAS continued to send LADs with the particular zone or sector in alarm status through time t + 15 minutes. There were numerous occasions, during various sector's 15 minutes of persistence, when ASOS generated a LTG DATA MISG remark (instead of the correct sector remark). This occurred for any minute when ASOS did not receive the ADAS LAD message "on time". Since the ADAS and ASOS one minute processing cycles are asynchronous this happens when ADAS sends the LAD a second or two later than normal.

NOTE: This problem does not appear occur with the AWOS.

11/07/97 DGG

In discussion with ADAS program office it was pointed out that the ADAS/AWOS ICD does have a requirement to wait before placing the LTG DATA MISG remark in the OMOs.

The requirement can be found in par 30.4.1.(c). Based on this paragraph ASOS should wait 2 consecutive minutes before the LTG DATA MISG remark is sent.

Recommendation

The ASOS software needs to be corrected to eliminate these erroneous remarks.
10/22/97 DGG

No solution as yet has been given by SMI to this problem.

10/26/97 DGG
One solution would be for the ASOS to put in some persistence timer that would require them to wait 2 or 3 polls before they issue a "LTG DATA MISG" remark (since AWOS doesn't have this problem, we're guessing this is what they do). I believe this would require a change in the ICD.

11/07/97 DGG
Since there is a requirement to handle this situation ASOS should implement a fix to wait the required 2 minutes.

11/26/97 - DGG
AUA will change the ICD to indicate that when ADAS stops receiving lightning data from NLDN that ASOS waits 2 minutes and then issues a LTG DATA MISG remark (actually AUA is looking to change all LTG DATA MISG to TSNO). This will require an ASOS software change. If it is implemented in the ASOS software build ver 2.5x then it will be tested during ASOS SAT ADAS/ASOS testing the week of Dec 1.

Action Taken

3/16/98 - DGG
Sent Wendell Cook e:mail to ask him the status of this PTR.

4/9/98 - DGG
AUA informed ACT that it was agreed that the AWOS ICD would be changed to identify that AWOS/ASOS should wait 2 minutes before setting lightning availability to unavailable. ICD par 30.4.1(a) would be changed as a result of this problem.

5/8/98 - DGG
Analysis of OT&E #2 data file al-02c-asos-sat.cap revealed that there were no LTG DATA MISG remarks in the KSP1 OMOs while there were LAD messages indicating lightning remarks for zone 3. It was during this scenario that the problem was first discovered. It appears that it has been corrected in the ASOS software (ver 2.52 or 2.53) and therefore this PTR has been closed.

Notes

6/23/98 - DGG

ALDARS PTR DETAILED REPORT - ALL

This PTR was still OPEN at the time the OT&E Final Report was written. Therefore it is listed in the final report as an OPEN PTR. Since the Final Report's completion, further testing has occurred and as a result the PTR is now CLOSED.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-038
PTR Title	AWOS outside ARTCC boundaries
PTR Open	☑
PTR Accepted	☑
Discover Date	10/21/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	NAS-SS-1000 Par 3.2.1.5.8.1.2.1
Discrepancy Description	Test AL-05 was designed such that a configuration file would have an AWOS with the west half of its 30 nm area inside the ARTCC boundaries and the east half of its 30nm area outside the ARTCC boundaries. For the first five minutes of the test, lightning strikes were placed within 30 nm of the AWOS and within the ARTCC boundary. For the second five minutes of the test, lightning strikes were placed within 30 nm of the AWOS and outside the ARTCC boundary. Based on NAS level requirements all of these strikes should have resulted in the corresponding zones and sectors indicating lightning in the LAD messages for the AWOS. However, the second five minutes of lightning strikes were not used for LAD message generation. The problem here is that the ADAS does not perform a check of the configuration to verify that no part of an AWOS's 30nm area is outside the ARTCC boundaries.
Recommendation	The recommendation is that the ADAS software be modified so that a check is made of the configuration file to verify that no part of the AWOS's 30nm area is outside the ARTCC boundaries. If this is not verified errors might occur (like those simulated in test AL-05) and result in lightning strikes not being reported to an AWOS. 11/07/97 DGG AUA needs to resolve the documentation description and then direct DME to incorporate software checks into the

ADAS to ensure that ASOS/AWOS lat/longs are not placed outside the ARTCC boundaries.

11/26/97 - DGG
At PMR it was decided that DME would propose a solution to this problem to be implemented for the Y2K build.

Action Taken

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-039
PTR Title	TSNO remark missing
PTR Open	☐
PTR Accepted	☑
Discover Date	10/24/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	ADAS/AWOS ICD Par. 90.3.2.12.3.10.2
Discrepancy Discription	Analysis of test AL-10 revealed that when OCT 57 and 58 had all bits set, the TSNO remark was not generated. Simulator #4 for this test was setup such that the last four minutes of the test OCT 57 & 58 were each set to 255 (xff). According to the ICD Par 90.3.2.12.3.10.2 this is the source data for generating the TSNO remark.
Recommendation	DME needs to investigate why this remark is missing. 11/25/97 - DGG At PMR it was confirmed that this PTR would be addressed by DME in build 4.19.
Action Taken	2/24/98 - DGG This was verified as corrected by OT&E #2 data for al-10, therefore PTR is closed.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-040
PTR Title	Missing SPECIs
PTR Open	☐
PTR Accepted	☑
Discover Date	10/24/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	
Discrepancy Discription	Analysis of test AL-10 revealed that for simulator #4 there were some missing SPECI reports. The simulator was setup with the SPECI bit set for all minutes. Each of the minutes with the aw_msg/ltg_end_o14 failed to generate the appropriate SPECI message.
Recommendation	Although it appears that the minutes for which the SPECIs were not generated were setup properly, further investigation will be performed. 11/07/97 DGG ACT-320 and DME need to investigate why this problem occurred. 11/26/97 - DGG DME pointed out that the length of ltg_end_o14 is 69 character and for ltg_beg_o14 it is 68. It was concluded that probably and extra space is resulting in no SPECI generation. DME tested this out and verified. This PTR will be closed once test is rerun during OT&E #2.
Action Taken	2/24/98 - DGG This PTR was closed once the aw_msg/ltg_end_o14 was fixed. OT&E #2 data for al-10 verified that this was fixed.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-041
PTR Title	Lightning Network Status Error
PTR Open	☐
PTR Accepted	☑
Discover Date	10/27/97
Failure Category	Software
Criticality	Critical
Originator	Groot
Location	ADAS PSF
Software Version	4.18/3.12
Related PTRs	
Affected Reqs	
Discrepancy Discription	Analysis of test AL-06x.itd file revealed the following problem. (Note: although 75 simulators were used the problem will be illustrated only with simulators K001 and K075). At 10:59 the NLDN was taken "out of service". Both K001 and K075 continued to correctly indicate all zone/sectors with lightning until 11:15 and 11:14, respectively. After these times both simulators correctly indicated all zone/sectors without lightning. Then at 11:18 the NLDN cable to ADAS was disconnected. At 11:19 the Lightning Network Status for K001 correctly went to "N", however, the Lightning Network Status remained "Y" for K075 (and most other simulators) until 11:33. After the NLDN to ADAS cable was reconnected at 11:35, K001 and K075 had Lightning Network Status as "Y" at 11:36.
Recommendation	DME needs to investigate if this was an ADAS software problem or if this was an IPS problem.
Action Taken	Never sent to DME. This PTR is being closed. The statement in the Discrepancy Description that "After these times both simulators correctly indicated all zone/sectors without lightning" is incorrect. In the transition from NLDN out of service to pulling the NLDN to ADAS cable, K075 received its lightning strikes while K001 did not. As a result, K075 began a new 15 minutes of persistence (at 11:18) but K001 did not. Therefore, K075 did not go to Lightning Network Status: "N" until 11:33.

ALDARS PTR DETAILED REPORT - ALL

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-042
PTR Title	Incorrect NLDN "Config Active" DP Indication
PTR Open	☑
PTR Accepted	☑
Discover Date	10/27/97
Failure Category	Software
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-043
Affected Reqs	Probably OTE TVRTM req LSS2-012

Discrepancy Discription

Analysis of test data for AL-06 revealed that the NLDN Communications DP printout indicated the NLDN Availability Status as "online-normal" and the Value as "config-active" for the conditions when the NLDN was set to "out of service" and when the NLDN to ADAS was disconnected. When NLDN was set to "out of service" the DP printout occurred 5 minutes later. When the NLDN to ADAS cable was pulled the DP printout occurred 12 minutes later.

2/23/98 - DGG
During DT&E and OT&E tests revealed that although the original software problem (of the NLDN being reported as CFG NOT after it had been reconnected) has been resolved, another problem still exists with the DP printouts. It appears that the NLDN Communications and ITWS communications DP printouts were not coded correctly. Therefore this PTR remains open, but it has been downgraded to moderate.

Recommendation

DME needs to investigate why the NLDN Communications DP printout did not reflect the status of the NLDN.

11/26/97 - DGG
More testing indicates that ADAS fails to set the DP correctly when ADAS is under the maximum load conditions. Since ADAS is using up the whole mission cycle to process lightning strikes, it doesn't always properly set the DP indicating NLDN "out of service". DME is going to

implement the fix for this in build 4.19.

2/23/98 -- DGG
DME needs to fix the DP printout to correctly indicate the status of the NLDN and ITWS communications.

Action Taken

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-043
PTR Title	MPS NLDN Interface Connection Status Error
PTR Open	☐
PTR Accepted	☑
Discover Date	10/28/97
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	OTE-042
Affected Reqs	ADAS/MPS ICD Table 20-16 OT&E TVRTM req. LSS2-012
Discrepancy Discription	Analysis of the IPS MPS file for test AL-06 revealed that the NLDN Interface Connection Status DP did not reflect the current condition of the NLDN Interface. At 10:59 of this test the NLDN was placed in an "out of service" condition. At 11:01 the NLDN Interface Connection Status DP indicated a Condition Status of "configured active". Then at 11:18 the cable from the NLDN to ADAS was disconnected. It wasn't until 11:31 that the NLDN Interface Connection Status DP indicated a Condition Status of "configured failed". At 11:35 the NLDN cable was reconnected to ADAS however, it wasn't until 12:16 that the NLDN Interface Connection Status DP indicated a Condition Status of "configured active". (See the notes section below for excerpts from the IPS MPS file.)
Recommendation	DME needs to investigate why the NLDN Interface Connection Status DP does not indicate the proper Condition Status. 11/26/97 - DGG More testing indicates that ADAS fails to set the DP correctly when ADAS is under the maximum load conditions. Since ADAS is using up the whole mission cycle to process lightning strikes, it doesn't always properly set the DP indicating NLDN is down. DME is going to implement the fix for this in build 4.19.

ALDARS PTR DETAILED REPORT - ALL

Action Taken

2/23/98 - DGG
Since the problem of stated in this PTR has been resolved it will be closed. The related PTR OTE-042 will remain open to track the problem of incorrect DP printouts for NLDN and ITWS communications.

Notes

RMS ID: 0x01 LOGICAL UNIT ID: 0x2d
DELIMITER: 0x00 MESSAGE
FUNCTION: 0x47
DATE: 09/10/97 TIME: 11:01:18
AVAILABILITY STATUS: (0x20) Online Normal
DATAPOINT ID: 0x01 CONDITION
STATUS: 0x40
DATA TYPE: 0x01 RESOLUTION:
0x00
PARAMETER VALUE: (002) Decimal
(02) Hex
( ) ASCII

RMS ID: 0x01 LOGICAL UNIT ID: 0x2d
DELIMITER: 0x00 MESSAGE
FUNCTION: 0x47
DATE: 09/10/97 TIME: 11:31:14
AVAILABILITY STATUS: (0x20) Online Normal
DATAPOINT ID: 0x01 CONDITION
STATUS: 0x42
DATA TYPE: 0x01 RESOLUTION:
0x00
PARAMETER VALUE: (001) Decimal
(01) Hex
( ) ASCII

RMS ID: 0x01 LOGICAL UNIT ID: 0x2d
DELIMITER: 0x00 MESSAGE
FUNCTION: 0x47
DATE: 09/10/97 TIME: 12:16:27
AVAILABILITY STATUS: (0x20) Online Normal
DATAPOINT ID: 0x01 CONDITION
STATUS: 0x40
DATA TYPE: 0x01 RESOLUTION:
0x00
PARAMETER VALUE: (002) Decimal
(02) Hex
( ) ASCII

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-044
PTR Title	Erroneous Event 21
PTR Open	☑
PTR Accepted	☑
Discover Date	10/29/97
Failure Category	Software
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	

Discrepancy Discription

Analysis of test AL-08 event log revealed that during times when no comm problems existed for the ADAS/NLDN interface an EVENT 21 was generated. These EVENT 21 messages were always generated around :45 seconds past the minute. The following is an example of this.

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-12-97 13:26:45
EVENT SEQ. NUMBER: 289 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: NLDN error message error code: Invalid message type
original csc id: 22.01 error number: 12
error offset: 353

Recommendation

DME needs to investigation why these EVENT 21s are generated.

11/26/97 - DGG
At the PMR DME explained that EVENT 21 messages are generated every minute because every minute the NLDN system sends a messages that is erroneous (based on the ADAS Spec requirements). As a result, ADAS generates this message. It was determined at the PMR that instead of making a change to the Spec. DME would generate a PCR about this problem and AUA would direct them to fix it by

removing EVENT 21 messages corresponding to these NLDN messages that are sent every minute. DME will generate this PCR and incorporate changes for the Y2K build.

Action Taken

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-045
PTR Title	Corrupted Context Sensitive Help Index
PTR Open	☑
PTR Accepted	☑
Discover Date	10/01/97
Failure Category	Software
Criticality	Moderate
Originator	Stratton
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	
Discrepancy Discription	The Specialist Interface always displays a Help Screen when the HELP Key is pressed. But in many cases not the correct help screen. Two examples are any of the Display Datapoint screens (e.g. Login SI, F10, F7, {any selection}, RETURN, HELP) and any Display Datapoint Thresholds screen (e.g. Login SI, F8, F7, {select Datapoint Thresholds}, RETURN, {any selection}, RETURN, HELP}.
Recommendation	DME needs to be verify that the help screens are using the most current ADAS System Manual for the Help screens content, and that pointers in the help index are correct for all SI screens. 11/26/97 - DGG DME indicated at PMR that they plan on implementing changes in the Y2K build.
Action Taken	
Notes	DEFERRED to ADAS Y2K build.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-046
PTR Title	Spacebar does not clear field
PTR Open	☑
PTR Accepted	☑
Discover Date	10/30/97
Failure Category	Software
Criticality	Moderate
Originator	Stratton
Location	ADAS PSF
Software Version	4.18
Related PTRs	
Affected Reqs	
Discrepancy Discription	During the OT&E Formal Test Run of DT&E Test 120 (Adaptation Data Test), in step 4.1.1.6.168, the operator is instructed to press the spacebar to clear the erroneous data from the RISE/FALL Threshold Field the enter valid data. When the spacebar was pressed, the field was not cleared. (NOTE: In all other fields tested by this procedure, the spacebar did clear the field.)
Recommendation	DME needs to Evaluate. 11/26/97 - DGG At the PMR DME indicated that they are still investigating, but, they believe there is a problem and will implement changes in the Y2K build.
Action Taken	
Notes	DEFERRED to ADAS Y2K build.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-047
PTR Title	NLDN Flash Buffer Box
PTR Open	✔
PTR Accepted	✔
Discover Date	01/06/98
Failure Category	Documentation
Criticality	Moderate
Originator	Vuong
Location	ADAS PSF
Software Version	4.19
Related PTRs	
Affected Reqs	
Discrepancy Discription	In order to establish a communication between NLDN and ADAS, ADAS specialist need(s) to set a dip switches in the Flash buffer box. Following are four dip switches that need to set in the buffer box : 1. The dip switch (1) for data output (O/P) will be set at 19.2K baud rate, 8 bit and none parity. 2. The dip switch (2) for data input (I/P) will be set at 1.2K baud rate, 8 bit and none parity. 3. The dip switch (3) which is inside the buffer box will be set at DTE. 4. The dip Switch (4) which is inside the buffer box will be set at DCE.
Recommendation	DME or AOS need to incorporate a schematic figure(s) and procedures in the Technical Instruction Manual (TI) or Installation Checkout and Acceptance (IC&A).
Action Taken	4/9/98 - DGG AOS has reported that this documentation has been implemented. ACT has not inspected these changes yet.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-048
PTR Title	Overrun of Mission Cycle
PTR Open	☑
PTR Accepted	☑
Discover Date	01/14/98
Failure Category	Software
Criticality	Major
Originator	Schlain
Location	ADAS Test Lab
Software Version	4.19
Related PTRs	
Affected Reqs	
Discrepancy Discription	When an AWOS-Format Message received by ADAS is determined to be in error, ADAS will log this error and generate an error message to the station originating the message in error. In the present software implementation, ADAS will remain in the polling phase of the Mission cycle until a correct message is received from the station in question. Since in most cases this won't occur for at least a minute, ADAS will overrun the Mission Cycle, and skip the Archive, Maintenance, LAD generation, and Clock Update Phases.
Recommendation	ADAS should not overrun a Mission Cycle due to a message received in error from an AWOS Station or all stations on a given channel or even all stations on a given Controller. ADAS should log the error(s) and generate/transmit the error message(s). ADAS should not skip any phases of the Mission Cycle. The software should be modified accordingly.
Action Taken	
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-049
PTR Title	Failure to Validate Message Length for AWOS Stations
PTR Open	☑
PTR Accepted	☑
Discover Date	01/14/98
Failure Category	Software
Criticality	Major
Originator	Schlain
Location	ADAS Test Lab
Software Version	4.19
Related PTRs	
Affected Reqs	ADAS System Spec, FAA-E-2804, Section 3.1.4.1.2.1
Discrepancy Discription	The above referenced requirement states that ADAS shall validate the message Format ID/Type and Message Type/Length. The present software only validates the Message Type/Length for AWOS type stations -- not ASOS type stations.
Recommendation	The software be modified to validate the Message Type/Length for ASOS stations also. 4/13/98 - DGG It was determined during 4/7 and 4/8/98 telcons with ACT, AOS and AUA that since the code is already in place to do this for AWOS and that these validations should be done for ASOS and since the SPEC, although contradictory, states it should be done, this software change should be implemented.
Action Taken	4/13/98 - DGG It was agreed that AOS would make the necessary software changes to implement this software mod. AUA would correct the SPEC so that there would be no contradictions concerning the validation of ASOS type messages.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-050
PTR Title	Failure to check site ID
PTR Open	☐
PTR Accepted	☑
Discover Date	01/05/98
Failure Category	Software
Criticality	Moderate
Originator	Schlain
Location	ADAS Test Bed
Software Version	4.19
Related PTRs	
Affected Reqs	
Discrepancy Discription	The ADAS does not check the site ID of incoming AWOS-Format messages. This means that One Minute Observation (OMO) AWOS-Format messages, which satisfy the other ADAS checks, could be sent to the WARP, ITWS, and DLP subsystems with site IDs which do not match those in the databases of these subsystems. Also, ADAS-generated METAR messages could be sent to the WMSCR with a site ID that WMSCR does not recognize. (The permissible site IDs are contained in FAA document 7350.6W "Site Identifiers").
Recommendation	In order to avoid the confusion which would arise if a NADIN II user of ADAS receives an OMO(s) or a METAR message from a site it doesn't recognize, it is recommended that the ADAS software check the site ID of every message before transmission to a NADIN II user. 4/9/98 - DGG During the telecons between AUA, AOS and ACT on 4/7 and 4/8, it was agreed that the Spec needed to be clarified and that the software should be changed to have the ASOS message length checked. The code to perform this is already in place since this check is performed for AWOS sites. This software will be implemented by DME and AUA will clarify the Spec.
Action Taken	4/9/98 - DGG During telecon on 4/7 and 4/8, AUA, AOS, and ACT agreed that this PTR would be closed since it was not an ADAS responsibility or requirement to check this.

ALDARS PTR DETAILED REPORT - ALL

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-051
PTR Title	ASC SI Lockup
PTR Open	☐
PTR Accepted	☑
Discover Date	1/13/98
Failure Category	System
Criticality	Moderate
Originator	Schlain
Location	ADAS PSF
Software Version	4.19 / 3.12
Related PTRs	
Affected Reqs	
Discrepancy Discription	During routine use of the ADAS SI, the ASC stopped responding to keyboard input. [The ASC terminal was powered down, triggering UNIX to terminate process associated with the terminal and spawn a 'getty' (login prompt) process. The ASC, and the SI, resumed normal operations.]
Recommendation	JKS: Not repeatable; may be random, or testbed setup induced, error; therefore advise PTR be closed with notification of ACT/AOS/AUA et al to key an eye open for possible future occurrences.
Action Taken	2/25/98 - DGG Since this was not repeatable this PTR is closed.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-052
PTR Title	Missing TSExx for AWOS SPECI
PTR Open	☑
PTR Accepted	☑
Discover Date	02/05/98
Failure Category	Software
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	4.19
Related PTRs	
Affected Reqs	
Discrepancy Discription	During analysis of OT&E #2 al-02c-1 data every OTIS SPECI within a given hour that contained more than one TSBxx and that ended the Thunderstorm portion of the present weather begin/end remark field with a Bxx, did not contain the first TSExx that occurred during that hour.
Recommendation	DME needs to investigate why this occurred. It does not appear to be a requirement in the ICD.
Action Taken	
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-053
PTR Title	WMSCR does not recognize SPECIs w/ in ADUs w/ "SA" W
PTR Open	☐
PTR Accepted	☑
Discover Date	2/6/98
Failure Category	Other
Criticality	Moderate
Originator	Stratton
Location	ADAS PSF
Software Version	4.18 / 4.19
Related PTRs	
Affected Reqs	
Discrepancy Discription	WMSCR looks at WMO Header Type, not at the ADU contents, to identify a SPECI.
Recommendation	AOS-530 has begun development of a patch to correct the Header Type. AOS-530 has developed a fix. ACT-320 will verify the functionality of the fixed software and monitor AOS inclusion of the fix into the delivered software prior to delivery to field sites.
Action Taken	AOS-530 delivered new 'cwm_out' binary for testing. ACT-320 testing confirms the WMO Type is SP for Speci Message ADU's.
Notes	Reverify in Deployment build.

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-054
PTR Title	ASOS Multiple TSBxx remarks
PTR Open	☑
PTR Accepted	☑
Discover Date	2/24/98
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.19 / ASOS
Related PTRs	
Affected Reqs	
Discrepancy Discription	Analysis of al-02b-2.cap data revealed that the ASOS, KSP1, indicated: 1. multiple TSBxx remarks without any Exx imbedded in the message. 2. cases where there was a SPECI/METAR reported in hour. H1, and then another SPECI/METAR in the next hour, H2. The problem was that in the H2 SPECI/METAR the TSB remark that was carried over from hour H1, did not contain the hour indicator in the TSB remark. (i.e. The H2 SPECI/METAR contained TSBxx and not the expected TSBhhxx). 3. some of the TSBxx minutes changed from one SPECI to the next SPECI. e.g.. in one SPECI TSB12 would be indicated and in the next TSB17 would appear.
Recommendation	The ASOS software needs to be examined to determine the problem. On 2/19/98 Wendell Cook sent an email message indicating that they knew about the problem in 1. Need to let them know about 2. and 3. 3/16/98 - DGG Sent Wendell Cook e:mail to ask him the status of this PTR.
Action Taken	
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-055
PTR Title	No TSExx after 15 Minute LAD Disable
PTR Open	☑
PTR Accepted	☐
Discover Date	2/18/98
Failure Category	Documentation
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	4.19
Related PTRs	
Affected Reqs	ADAS/AWOS ICD 90.3.2.12.1.5.3
Discrepancy Discription	Analysis of results for OT&E #2 test data al-09-2.cap indicates that when OTIS station was LAD disabled at 14:34 and remained disabled until 14:56, no TSExx was generated. At 1433Z an OTIS SPECI was generated indicating "LTG DSNT NE AND SE TSB13". The next report for OTIS was the hourly METAR at 1500Z which contained no remarks about lightning. There should have been an indication in the METAR that the lightning had ended. 4/13/98 - DGG Examination of test data for AL-09 from 4/8/98 live testing with OTIS reveals that from 13:34 to 13:43 OTIS site was LAD Disabled. The ICD states that if there was lightning active prior to setting the LAD disabled, the disabling lasted less than 10 minutes, and the lightning was still active after the 10 minutes, then there should be a continuation of the event. However, the SPEC states that all lightning history is wiped out when a LAD disable occurs.
Recommendation	Need to investigate why this TSExx was never included in the METAR at 1500Z 4/13/98 - DGG The ICD needs to be clarified and updated so that the LAD disabled LTG DATA MISG that is less than 15 minutes is to be excluded from the conditions for the continuation of an event.

Action Taken

4/9/98 - DGG
Re-evaluation of this PTR indicated that for the case described above, ADAS handled this scenario correctly. However, further tests were to be performed to determine if ADAS would handle properly if the LAD disable was implemented for less than 15 minutes while a TSBxx remark was generated.

4/13/98 - DGG
This PTR was modified from the original and now is considered to be a Documentation PTR and not a software PTR.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-056
PTR Title	ASOS Multiple TSBxx, no TSExx
PTR Open	☐
PTR Accepted	☑
Discover Date	2/23/98
Failure Category	Software
Criticality	Moderate
Originator	Groot
Location	ADAS PSF
Software Version	4.19 / ASOS
Related PTRs	
Affected Reqs	
Discrepancy Discription	This discrepancy was already identified in PTR OTE-054.
Recommendation	ASOS personnel indicated that this problem was being investigated by the ASOS software developers.
Action Taken	This PTR is closed since it was all ready included in PTR OTE-054.
Notes	

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-057
PTR Title	Wrong Quadrant for Lightning Remark
PTR Open	☐
PTR Accepted	☑
Discover Date	2/23/98
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.19 / ASOS
Related PTRs	
Affected Reqs	
Discrepancy Discription	Analysis of the data for test AL-09 (file al-09-4.*) revealed that at 19:03 the LAD (saved by the ADAS IPS) indicated lightning in the N and SW quadrants. However, the 1903Z SPECI for the ASOS (KSP1) reported in the lightning remarks, LTG DSNT NE AND SW. The AWOS format weather message at 19:03 for KSP1 also had LTG DSNT NE AND SW and 22 hex for the sector information (corresponding to lightning in the NE and SW quadrants). Wendell Cook, from ASOS project, investigated and found that the data that was captured by NWS indicated a LAD with 22 hex (corresponding to the NE and SW sectors).
Recommendation	It is unclear why this anomaly occurred. Since this test was using live lightning data the only way to attempt to repeat it will be for ACT-320 to simulate the conditions with the IPS.
Action Taken	2/25/98 - DGG When running this test the way that LAD messages are stored (on the ADAS IPS) for the live ASOS/AWOS is to have a simulated station, K001, set up on the IPS. Because this station can not have exactly the same lat/long as the live stations, the latitude is always .05 minutes different. After analyzing the saved lightning data on the NLDN it was determined that the lightning strike that precipitated this PTR being written happened to fall right on the 22.5 degree border between the N and NE sector. As a result, ADAS computed that this lightning strike was associated with the N sector for K001 but in the NE sector for KSP1. Although normally these stations report exactly the same, in this odd case they

report something different. As a result of this analysis, this PTR is closed.

Notes

ALDARS PTR DETAILED REPORT - ALL

PTR #	OTE-058
PTR Title	Good/Bad Quality Factor Bit Flip Flop
PTR Open	☑
PTR Accepted	☑
Discover Date	2/23/98
Failure Category	Software
Criticality	Major
Originator	Groot
Location	ADAS PSF
Software Version	4.19 / GAI
Related PTRs	
Affected Reqs	
Discrepancy Discription	While running live lightning tests on 2/19/98, observed very few lightning strikes being processed by ADAS for inclusion in LAD messages. Further analysis of al-09-4 data (specifically the ITWS file) revealed that of 97 lightning strikes during the test only 5 had a good quality factor bit. Contacted GAI (William Brooks) to ascertain why such a small percentage had a good quality factor bit. He was investigating why this had occurred. As of 2/23/98, William Brooks suspected that somehow GAI had inadvertently swapped good quality strikes for bad quality strikes and vice versa.
Recommendation	GAI needs to provide a final assessment of the problem. Based on the findings of the GAI investigation this PTR could be upgraded to Critical. 3/27/98 - DGG After GAI reported last week that the QFB had been flip flopped, ACT-32 requested that GAI provide details as to how and why this error occurred and how it will be prevented in the future. ACT-320 has also recommended that ADAS software be modified to have a DP that tracks the ratio of good to bad flashes, and when this ratio falls below a predefined value (eg. 90%) then an alarm would be issued.
Action Taken	3/27/98 - DGG Last week Bill Brooks from GAI called to inform ACT-320 that their software engineers had found the QFB flip flopped. They believe they have corrected the problem. ACT-320 has

requested that GAI provide details as to how and why this error occurred and how it will be prevented in the future. ACT-320 has also recommended that ADAS software be modified to have a DP that tracks the ratio of good to bad flashes, and when this ratio falls below a predefined value (eg. 90%) then an alarm would be issued.

Notes

APPENDIX C

TEST PROCEDURES STEPS AND ASSOCIATED TEST DATA

C. APPENDIX C - Test Procedure Steps & Associated Test Data

This appendix lists OT&E tests' procedure steps, and details of Associated Evaluation Criteria and Data. A hard copy of the files referenced in this appendix would be thousands of pages in length. For this reason, the referenced data files are provided as an attachment to this report. Any files referenced in this appendix reside in storage with ACT-320 at the FAA Technical Center in Atlantic City, NJ.

C.1. CATEGORY AL - Automated Lightning Tests

C.1.1. TEST AL-01A - ALDARS Interface

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.1.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[x]	[ ]	NLDN to ADAS (216 bits and 667 times/minute). CR01 NAS-SS-1000, Vol. II Table 3.2.1.5.8.3-T1k LSS2-024
c.	[x]	[ ]	The correct receipt of these messages by the ITWS 216 bits and 667 times/minute). CR02 NAS-SS-1000,Vol. II Table 3.2.1.5.8.3-T111 ISS2-005

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into test AL-01A's Test Conduct Form (TCF) file, "AL-01A.TCF".

DATA EXTRACTED FROM IPS FILE:

```
.........................................................................
..
.  07-30-97  18:17:54  . Events: 2    . Responses: 0    . Message Output Cmds
.
```

....
..

DISPLAY INPUT MESSAGE LOG

```
INPUT MESSAGE:              5                          CR02
RECEIVE TIME (IPS):    07/30/97 18:15:06
RECEIVE TIME (ADAS):07/30/97 18:15:06
SIMULATOR ID:               6
MESSAGE TYPE:          ITWS1.LDD.MSG
MESSAGE SIZE:             110
GROUP ID:                   4
```

HEX DUMP OF TEST FILE:

```
01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4c 44 55 53
30 31 20 41 43 54 59 20 33 30 31 38 31 35 20 00 00 00 0d 0d
0a 00 03 34 c0 23 b3 31 a9 74 d2 58 22 48 77 75 d2 58 22 48
ce 76 d2 58 22 48 92 74 d2 58 22 48 92 74 d2 58 22 48 92 74
d2 58 22 48 92 74 d2 58 22 48 92 74 d2 58 22 48 04 c0 23 b3
31 04 c0 23 b3 31 0d 0d 0a 03
```

ITWS1 LDD INCOMMING MESSAGE CR01

INPUT MESSAGE LOG - TEST ID: AL-01A VERS: 1

....

```
INPUT MESSAGE #:          5

  RECEIVE TIME (IPS):     07/30/97 18:15:06
  RECEIVE TIME (ADAS):    07/30/97 18:15:06
  SIMULATOR ID:               6
  MESSAGE TYPE:           ITWS1_LDD_MSG
  MESSAGE SIZE:             110
  GROUP ID:                   4
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              01
  SITE ID:               ACTY
  DAY/HOUR/MINUTE:       30/18/15
  Number of Messages      3
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :34
DATE/TIME FIELD     :c0 23 b3 31
FLASH RECORD #01    :a9 74 d2 58 22 48
FLASH RECORD #02    :77 75 d2 58 22 48
FLASH RECORD #03    :ce 76 d2 58 22 48
FLASH RECORD #04    :92 74 d2 58 22 48
FLASH RECORD #05    :92 74 d2 58 22 48
FLASH RECORD #06    :92 74 d2 58 22 48
FLASH RECORD #07    :92 74 d2 58 22 48
FLASH RECORD #08    :92 74 d2 58 22 48
```

```
LENGTH INDICATOR   :04
DATE/TIME FIELD    :c0 23 b3 31

LENGTH INDICATOR   :04
DATE/TIME FIELD    :c0 23 b3 31
No more messages in this ADU

-----------------------------------------------------------------------
-
INPUT MESSAGE #:          6

  RECEIVE TIME (IPS):     07/30/97 18:15:13
  RECEIVE TIME (ADAS):    07/30/97 18:15:13
  SIMULATOR ID:                  6
  MESSAGE TYPE:           ITWS1_LDD_MSG
  MESSAGE SIZE:                 52
  GROUP ID:                      5
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              01
  SITE ID:               ACTY
  DAY/HOUR/MINUTE:       30/18/15
  Number of Messages     1
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR   :04
DATE/TIME FIELD    :c0 23 b3 31
No more messages in this ADU

-----------------------------------------------------------------------
-
INPUT MESSAGE #:          7

  RECEIVE TIME (IPS):     07/30/97 18:15:20
  RECEIVE TIME (ADAS):    07/30/97 18:15:20
  SIMULATOR ID:                  6
  MESSAGE TYPE:           ITWS1_LDD_MSG
  MESSAGE SIZE:                 57
  GROUP ID:                      7
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              01
  SITE ID:               ACTY
  DAY/HOUR/MINUTE:       30/18/15
  Number of Messages     2
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR   :04
DATE/TIME FIELD    :c0 23 b3 31

LENGTH INDICATOR   :04
```

```
DATE/TIME FIELD      :c0 23 b3 31
No more messages in this ADU

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
INPUT MESSAGE #:            8

  RECEIVE TIME (IPS):      07/30/97 18:15:30
  RECEIVE TIME (ADAS):     07/30/97 18:15:30
  SIMULATOR ID:                   6
  MESSAGE TYPE:            ITWS1_LDD_MSG
  MESSAGE SIZE:                 110
  GROUP ID:                       8
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                 0x01
  TYPE:                   LD
  GEOGRAPHIC DESIG:       US
  BULLETIN:               01
  SITE ID:                ACTY
  DAY/HOUR/MINUTE:        30/18/15
  Number of Messages      3
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR     :04
DATE/TIME FIELD      :c0 23 b3 31

LENGTH INDICATOR     :34
DATE/TIME FIELD      :d9 23 b3 31
FLASH RECORD #01     :92 74 c5 58 22 48
FLASH RECORD #02     :92 74 50 58 22 48
FLASH RECORD #03     :92 74 8d 57 22 48
FLASH RECORD #04     :92 74 d2 58 22 48
FLASH RECORD #05     :92 74 d2 58 22 48
FLASH RECORD #06     :92 74 d2 58 22 48
FLASH RECORD #07     :92 74 d2 58 22 48
FLASH RECORD #08     :92 74 d2 58 22 48


LENGTH INDICATOR     :04
DATE/TIME FIELD      :d9 23 b3 31
No more messages in this ADU
```

NLDN LDD OUTGOING MESSAGE   CR01

```
OUTPUT MESSAGE LOG - TEST ID: AL-01A    VERS: 1

...........

07/30/97 18:15:00 FLASHMESSAGE
  7d96 c023 b331 a974 d258 2248 7775 d258 2248 ce76 d258 2248 9274 d258
  2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 767e

07/30/97 18:15:00 FLASHMESSAGE
  7d96 c023 b331 f77e

07/30/97 18:15:05 FLASHMESSAGE
  7d96 c023 b331 f77e
```

```
07/30/97 18:15:10 FLASHMESSAGE
  7d96 c023 b331 f77e

07/30/97 18:15:15 FLASHMESSAGE
  7d96 c023 b331 f77e

07/30/97 18:15:20 FLASHMESSAGE
  7d96 c023 b331 f77e

07/30/97 18:15:25 FLASHMESSAGE
  7d96 c023 b331 f77e

07/30/97 18:15:25 FLASHMESSAGE
  7d96 d923 b331 9274 c558 2248 9274 5058 2248 9274 8d57 2248 9274 d258
  2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 2b7e

07/30/97 18:15:25 FLASHMESSAGE
  7d96 d923 b331 ee7e

.........
```

DATA EXTRACTED FROM ADAS FILE:

COMMUNICATIONS DATAPOINTS CR01

```
..................................................................
..
.  07-30-97  18:15:24  . Events:     0 . Responses:     0 .   DATAPOINT CMDS
.
..................................................................
..
                    DISPLAY NLDN COMMUNICATIONS LU DATAPOINTS
                                              ALERT     ALARM
  DATAPOINT NAME        ID    VALUE        CURR PAST CURR PAST   LAST RESET

 CONNECTION STATUS:     01 CFG-ACTIVE                         07-30-97 18:13:21
 NLDN FAILURES TOTAL:   02          2                         07-30-97 18:13:21
 ERROR DETECTED:        03          0                         07-30-97 18:13:21
 ERROR DETECTED TOTAL:  04          0                         07-30-97 18:13:21


..................................................................
..
.  07-30-97  18:15:37  . Events:     0 . Responses:     0 .   DATAPOINT CMDS
.
..................................................................
..
                     DISPLAY ITWS COMMUNICATION LU DATAPOINTS
                                              ALERT     ALARM
  DATAPOINT NAME        ID    VALUE        CURR PAST CURR PAST   LAST RESET

 CONNECTION STATUS:     01   CFG-ACTIVE                     * 07-30-97 18:13:21
 AWOS MESSAGES SENT:    02          0                         07-30-97 18:13:21
 AWOS ADU MSGS SENT:    03          0                         07-30-97 18:13:21
```

LDD MESSAGES SENT: 04 23 07-30-97 18:13:21
LDD ADU SENT: 05 5 07-30-97 18:13:21

ADAS EVENT LOG FILE **CR01**

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 18:10:42
EVENT SEQ. NUMBER: 43 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 18:14:27
EVENT SEQ. NUMBER: 494 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 18:16:47
EVENT SEQ. NUMBER: 531 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 18:13:22
EVENT SEQ. NUMBER: 83 EVENT TYPE: 62 CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 18:14:51
EVENT SEQ. NUMBER: 497 EVENT TYPE: 62 CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 18:15:00
EVENT SEQ. NUMBER: 498 EVENT TYPE: 62 CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 18:16:47
EVENT SEQ. NUMBER: 530 EVENT TYPE: 62 CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-failed

C.1.1.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's Data Reduction and Analysis Method paragraph in the main body of this report, were extracted from test procedure file "AL-01A.TCF".

TEST ID: **AL-01A** TEST OPERATOR: ___HUGH H. VUONG____ DATE: 07_/30_/97_ TIME: _18_ :_14_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports. [1-6A to 1-7A]	[x] Pass [ ] Fail	Insert Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS/IPS NLDN Monitor Port to the "live" NLDN display port.	The patch cable connects the ADAS/IPS NLDN Monitor Port to the "live" NLDN display port.	[x] Pass [ ] Fail	Stop Test
3.	@Patch Panel: verify that a patch cable re-directs the IPS LOG Port to the PSF-PC1 for data capture.	A cable patches the IPS LOG port to the PSF-PC1 port.	[x] Pass [ ] Fail	Insert Cable
4.	Patch Panel: verify that a patch cable re-directs the ADAS SEP Port to the PSF-PC2 for data capture.	A cable patches the SEP port to the PSF-PC2 port.	[x] Pass [ ] Fail	Insert Cable
5.	@PC1: start data capture. **"cap_data [space] AL-01A [RETURN]{wait}[RETURN]**.	The PSF-PC1 is configured to capture the IPS data output into a DOS ASCII file.	[x] Pass [ ] Fail	Stop Test
6.	@PC2: start data capture. **"cap_data [space] AL-01A [RETURN] {wait} [right] [del] [del] [del]** "com" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS data output into a DOS ASCII file.	[x] Pass [ ] Fail	Stop Test
7.	On NLDN system clear flash buffer. Go to {Flash-buffer}**[F][C]**{clear}**[y]**.	Display should indicate no flash on the IUC	[x] Pass [ ] Fail	Stop Test
8.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The state of the ADAS application is displayed, followed by the 'adas' prompt.	[x] Pass [ ] Fail	Stop Test
9.	If the ADAS is not shutdown then -> @AUC 'adas' prompt: Issue the stop_adas command. **"stop_adas [RETURN]"**	The AUC indicates an emergency shutdown. The ASC displays a 'login' prompt.	[x] Pass [ ] Fail	Stop Test
10.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The state of the IPS application is displayed, followed by the 'aldars' prompt.	[x] Pass [ ] Fail	Stop Test
11.	If IPS is not shutdown then -> @IUC 'aldars' prompt: Issue the command to Shutdown the IPS. **"stop_ips [RETURN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-01A** TEST OPERATOR: ___HUGH H. VUONG____ DATE: 07_/30_/97_ TIME: _18_ :_14_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
12.	@IUC: enter " **ADR_On**"	Capture the data file(s) to the UNIX'/ temp' directory, and print the data when the test is finished.	[x] Pass [ ] Fail	Stop Test
13.	@IUC and @ AUC enter **"setdate MMDDhhmmYY"** (MMDDhhmmYY shoud be obtained from the 10 digits output by IPS @IUC in the previous step. Set the date and time to the same minute. Use the GMT from the NLDN monitor display.	IUC and AUC will display the entered date and time.	[x] Pass [ ] Fail	Stop Test
14.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login	[x] Pass [ ] Fail	Stop Test
15.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts.	[x] Pass [ ] Fail	Stop Test
16.	@ISC display: Reset the IPS test time offset. "**[F8] [F11] [SPACE] [RETURN] [F14]**".	The IPS test time offset is reset to 0.	[x] Pass [ ] Fail	Stop Test
17.	@AUC 'adas' prompt: enter **"cl 64"**	AUC Displays: Config 64 loaded	[x] Pass [ ] Fail	Stop Test
18.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Initialization State".	[x] Pass [ ] Fail	Stop Test
19.	Wait for ADAS to get to Operational State	Wait for "Specialist may login for the Operational State" to be displayed on AUC.	[x] Pass [ ] Fail	Stop Test
20.	@ISC ISI: start test **"AL-01"**. "**[F8] [F7] AL-01A [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [SPACE] [RETURN] [RETURN] {wait} [F14] [F14]**"	ISI Response: "Starting Test..." then --- --- Start Test Request: Success The Test Started --- ---	[x] Pass [ ] Fail	Stop Test
21.	@IUC wait for displaying successive multiple " S Pong 4 " received.	S Pong 4 indicates that ADAS communicate with DLP.	[x] Pass [ ] Fail	Stop Test
22.	@IUC ISI: enter **[F6] [F7]**	ISI display: "Ack after 45-50 secs after xfer to DLP to set start test flag".	[x] Pass [ ] Fail	Stop Test
23.	@ISC ISI: wait for the IPS clock displays @ 45-50 secs of the next mission cycle. Select **[F7]** .	Acknowledge event (start of the lightning script file).	[x] Pass [ ] Fail	Stop Test
24.	Record the time of test commencement below; as depicted on the ISI screen clock display, and the current date based on Zulu time. Hr:_18___min:_14___sec:_46_____	Record the date/ time when select '**[F7]**' above.	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-01A**   TEST OPERATOR: ___HUGH H. VUONG____   DATE: 07_/30_/97_   TIME: _18_ :_14_   TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	Date:_07/30/97___			
25.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts.	[x] Pass [ ] Fail	Stop Test
26.	@ASC: NLDN Communications datapoint, Select **[F10] [F7] [N] [RETURN] [F2] [F14]**.	The NLDN Communications Datapoints were printed.	[x] Pass [ ] Fail	Stop Test
27.	@ASC: ITWS1 Communications datapoint, Select **[F7] [I] [RETURN]** enter "ID = I001", **[RETURN] [F2] [F14] [F14]**.	The ITWS1 Interface Status	[x] Pass [ ] Fail	Stop Test
28.	@PC2: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes	[x] Pass [ ] Fail	Stop Test
29.	@PC2: start data capture. **"cap_data [space] AL-01A [RETURN]{wait}[right][del][del][del]** "evt" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS EVENT data output into a DOS ASCII file.	[x] Pass [ ] Fail	Stop Test
30.	Wait for Test to automatically end.	Expected Response @IUC: "**** ICP_CTLsta.c test_term() successfully ****"	[x] Pass [ ] Fail	Stop Test
31.	@ISI: Display the ITWS1 LDD Out Incoming Message Log (IML) to file. **"[F7] [F8] [F7] AL-01A [RETURN] [RETURN] [SPACE] [SPACE] [RETURN] [I] [DOWN] [RETURN]**.	File is display.	[x] Pass [ ] Fail	Stop Test
32.	@ISI: If the displayed message's IPS receive time is not greater the recorded start time plus 10 seconds (RECEIVE TIME(IPS):=> 10 secs), press **[F7]** to display the next record. Repeat **[F7]** until desired record is shown.	Record is shown.	[x] Pass [ ] Fail	Stop Test
33.	Verify that the MESSAGE SIZE does not exceed 4096 bytes.	Message size IAW ADAS/ITWS ICD	[x] Pass [ ] Fail	Stop Test
34.	@ISI: Press **[F10]** to print message in HEX **{wait} [F14] [F14]**.	HEX printout of record is sent to printer.	[x] Pass [ ] Fail	Stop Test
35.	@ISI: Output the ITWS1 LDD Output incoming Message Log (IML) to file. **"[F7] AL-01A [RETURN] [RETURN] [SPACE] [RETURN] [I] [DOWN] [RETURN] {wait} [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[x] Pass [ ] Fail	Stop Test
36.	@ISI: Output the NLDN LDD Output Outgoing Message Log (OML) to file. **"[F8] AL-01A [RETURN] [RETURN] [SPACE] [RETURN] [N] [RETURN] {wait} [F14] [F14] [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[x] Pass [ ] Fail	Stop Test
37.	@ASC SI: Select **[F13] [F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 62	EVENT LOG for status of the NLDN connection has changed.	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN][F14].			
38.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 61 **[RETURN][F14][F14]**.	EVENT LOG for status of the ITWS connection has changed.	**[x]** Pass **[ ]** Fail	Stop Test
39.	@ISC ISI: Issue the command to Shutdown IPS. "**[F8] [F10] [SPACE] [RETURN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
40.	@ASC SI: Issue the command to Shutdown ADAS. "**[F7] [F8] [SPACE] [RETURN]**"	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
41.	@PC1: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[x]** Pass **[ ]** Fail	Stop Test
42.	@PC2: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[x]** Pass **[ ]** Fail	Stop Test
43.	@AUC: enter **"exit"**	The AUC displays a login prompt.	**[x]** Pass **[ ]** Fail	Stop Test
44.	@IUC: enter **"exit"**	The IUC displays a login prompt.	**[x]** Pass **[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.2. TEST AL-01B - ALDARS Interface

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.2.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[x]	[ ]	NLDN to ADAS (216 bits and 667 times/minute). CR01 NAS-SS-1000, Vol. II Table 3.2.1.5.8.3-T1k LSS2-024
c.	[x]	[ ]	The correct receipt of these messages by the ITWS 216 bits and 667 times/minute). CR02 NAS-SS-1000,Vol. II Table 3.2.1.5.8.3-T111 ISS2-005

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into test AL-01B's Test Conduct Form (TCF) file, "AL-01B.TCF".

DATA EXTRACTED FROM IPS FILE:

```
...................................................................
..
.  10-06-97  14:34:48  . Events: 1     . Responses: 0     . Message Output Cmds
.
...................................................................
..
                         DISPLAY INPUT MESSAGE LOG

   INPUT MESSAGE:              14              CR02

   RECEIVE TIME (IPS): 10/06/97 14:27:08
   RECEIVE TIME (ADAS):10/06/97 14:27:08
   SIMULATOR ID:                  6
   MESSAGE TYPE:            ITWS1.LDD.MSG
   MESSAGE SIZE:                 182
   GROUP ID:                      14
```

HEX DUMP OF TEST FILE:

```
01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4c 44 55 53   <-----HEAD
32 37 20 4b 41 43 59 20 30 36 31 34 32 37 20 00 00 00 0d 0d
0a 00 03 7c c0 e6 3a 32 db 76 7a 3b 22 48 db 76 87 3b 22 48
db 76 a1 3b 22 48 db 76 6d 3b 22 48 db 76 94 3b 22 48 db 76
ae 3b 22 48 db 76 bb 3b 22 48 db 76 d5 3b 22 48 db 76 ef 3b
22 48 db 76 ae 3b 22 48 db 76 c8 3b 22 48 db 76 e2 3b 22 48
db 76 fc 3b 22 48 db 76 30 3c 22 48 db 76 64 3c 22 48 db 76
98 3c 22 48 db 76 09 3c 22 48 db 76 4a 3c 22 48 db 76 d9 3c
22 48 db 76 f3 3c 22 48 04 c0 e6 3a 32 04 c0 e6 3a 32 0d 0d
0a 03  <-------TAIL
```

ITWS1 LDD INPUT MESSAGE/NLDN LDD OUTPUT MESSAGE:

.... CR01

INPUT MESSAGE #: 14

```
  RECEIVE TIME (IPS):     10/06/97 14:27:08
  RECEIVE TIME (ADAS):    10/06/97 14:27:08
  SIMULATOR ID:                 6
  MESSAGE TYPE:           ITWS1 LDD MSG
  MESSAGE SIZE:                182
  GROUP ID:                     14
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                 0x01
  TYPE:                   LD
  GEOGRAPHIC DESIG:       US
  BULLETIN:               27
  SITE ID:                KACY
  DAY/HOUR/MINUTE:        06/14/27
  Number of Messages       3
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :7c
DATE/TIME FIELD     :c0 e6 3a 32
FLASH RECORD #01    :db 76 7a 3b 22 48
FLASH RECORD #02    :db 76 87 3b 22 48
FLASH RECORD #03    :db 76 a1 3b 22 48
FLASH RECORD #04    :db 76 6d 3b 22 48
FLASH RECORD #05    :db 76 94 3b 22 48
FLASH RECORD #06    :db 76 ae 3b 22 48
FLASH RECORD #07    :db 76 bb 3b 22 48
FLASH RECORD #08    :db 76 d5 3b 22 48
FLASH RECORD #09    :db 76 ef 3b 22 48
FLASH RECORD #10    :db 76 ae 3b 22 48
FLASH RECORD #11    :db 76 c8 3b 22 48
FLASH RECORD #12    :db 76 e2 3b 22 48
FLASH RECORD #13    :db 76 fc 3b 22 48
FLASH RECORD #14    :db 76 30 3c 22 48
FLASH RECORD #15    :db 76 64 3c 22 48
FLASH RECORD #16    :db 76 98 3c 22 48
FLASH RECORD #17    :db 76 09 3c 22 48
FLASH RECORD #18    :db 76 4a 3c 22 48
FLASH RECORD #19    :db 76 d9 3c 22 48
FLASH RECORD #20    :db 76 f3 3c 22 48
```

```
LENGTH INDICATOR    :04
DATE/TIME FIELD     :c0 e6 3a 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :c0 e6 3a 32
No more messages in this ADU

..................................


INPUT MESSAGE #:          18

  RECEIVE TIME (IPS):       10/06/97 14:27:31
  RECEIVE TIME (ADAS):      10/06/97 14:27:31
  SIMULATOR ID:                    6
  MESSAGE TYPE:             ITWS1 LDD MSG
  MESSAGE SIZE:                   182
  GROUP ID:                        19
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                  0x01
  TYPE:                    LD
  GEOGRAPHIC DESIG:        US
  BULLETIN:                27
  SITE ID:                 KACY
  DAY/HOUR/MINUTE:         06/14/27
  Number of Messages        3
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :7c
DATE/TIME FIELD     :d9 e6 3a 32
FLASH RECORD #01    :c7 76 6d 3b 22 48
FLASH RECORD #02    :b4 76 6d 3b 22 48
FLASH RECORD #03    :8c 76 6d 3b 22 48
FLASH RECORD #04    :db 76 6d 3b 22 48
FLASH RECORD #05    :a0 76 6d 3b 22 48
FLASH RECORD #06    :79 76 6d 3b 22 48
FLASH RECORD #07    :65 76 6d 3b 22 48
FLASH RECORD #08    :3e 76 6d 3b 22 48
FLASH RECORD #09    :17 76 6d 3b 22 48
FLASH RECORD #10    :79 76 6d 3b 22 48
FLASH RECORD #11    :51 76 6d 3b 22 48
FLASH RECORD #12    :2a 76 6d 3b 22 48
FLASH RECORD #13    :03 76 6d 3b 22 48
FLASH RECORD #14    :b4 75 6d 3b 22 48
FLASH RECORD #15    :66 75 6d 3b 22 48
FLASH RECORD #16    :17 75 6d 3b 22 48
FLASH RECORD #17    :ef 75 6d 3b 22 48
FLASH RECORD #18    :8d 75 6d 3b 22 48
FLASH RECORD #19    :b5 74 6d 3b 22 48
FLASH RECORD #20    :8e 74 6d 3b 22 48


LENGTH INDICATOR    :04
DATE/TIME FIELD     :da e6 3a 32
```

```
LENGTH INDICATOR    :04
DATE/TIME FIELD     :da e6 3a 32
No more messages in this ADU


......................


INPUT MESSAGE #:          21

  RECEIVE TIME (IPS):      10/06/97 14:27:58
  RECEIVE TIME (ADAS):     10/06/97 14:27:58
  SIMULATOR ID:                   6
  MESSAGE TYPE:            ITWS1_LDD_MSG
  MESSAGE SIZE:                  182
  GROUP ID:                       22
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                 0x01
  TYPE:                   LD
  GEOGRAPHIC DESIG:       US
  BULLETIN:               27
  SITE ID:                KACY
  DAY/HOUR/MINUTE:        06/14/27
  Number of Messages       3
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :7c
DATE/TIME FIELD     :f3 e6 3a 32
FLASH RECORD #01    :db 76 60 3b 22 48
FLASH RECORD #02    :db 76 53 3b 22 48
FLASH RECORD #03    :db 76 39 3b 22 48
FLASH RECORD #04    :db 76 6d 3b 22 48
FLASH RECORD #05    :db 76 46 3b 22 48
FLASH RECORD #06    :db 76 2c 3b 22 48
FLASH RECORD #07    :db 76 1f 3b 22 48
FLASH RECORD #08    :db 76 05 3b 22 48
FLASH RECORD #09    :db 76 eb 3a 22 48
FLASH RECORD #10    :db 76 2c 3b 22 48
FLASH RECORD #11    :db 76 12 3b 22 48
FLASH RECORD #12    :db 76 f8 3a 22 48
FLASH RECORD #13    :db 76 de 3a 22 48
FLASH RECORD #14    :db 76 aa 3a 22 48
FLASH RECORD #15    :db 76 76 3a 22 48
FLASH RECORD #16    :db 76 42 3a 22 48
FLASH RECORD #17    :db 76 d1 3a 22 48
FLASH RECORD #18    :db 76 90 3a 22 48
FLASH RECORD #19    :db 76 01 3a 22 48
FLASH RECORD #20    :db 76 e7 39 22 48


LENGTH INDICATOR    :04
DATE/TIME FIELD     :f3 e6 3a 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :f3 e6 3a 32
No more messages in this ADU
```

....

....

10/06/97 14:27:00 FLASHMESSAGE
7d96 c0e6 3a32 db76 7a3b 2248 db76 873b 2248 db76 a13b 2248 db76 6d3b
2248 db76 943b 2248 db76 ae3b 2248 db76 bb3b 2248 db76 d53b 2248 db76 ef3b
2248
db76 ae3b 2248 db76 c83b 2248 db76 e23b 2248 db76 fc3b 2248 db76 303c 2248
db76
643c 2248 db76 983c 2248 db76 093c 2248 db76 4a3c 2248 db76 d93c 2248 db76
f33c
2248 e87e

10/06/97 14:27:00 FLASHMESSAGE
7d96 c0e6 3a32 b87e

....

10/06/97 14:27:26 FLASHMESSAGE
7d96 d9e6 3a32 c776 6d3b 2248 b476 6d3b 2248 8c76 6d3b 2248 db76 6d3b
2248 a076 6d3b 2248 7976 6d3b 2248 6576 6d3b 2248 3e76 6d3b 2248 1776 6d3b
2248
7976 6d3b 2248 5176 6d3b 2248 2a76 6d3b 2248 0376 6d3b 2248 b475 6d3b 2248
6675
6d3b 2248 1775 6d3b 2248 ef75 6d3b 2248 8d75 6d3b 2248 b574 6d3b 2248 8e74
6d3b
2248 8e7e

10/06/97 14:27:26 FLASHMESSAGE
7d96 dae6 3a32 a27e
....

10/06/97 14:27:51 FLASHMESSAGE
7d96 dae6 3a32 a27e

10/06/97 14:27:51 FLASHMESSAGE
7d96 f3e6 3a32 db76 603b 2248 db76 533b 2248 db76 393b 2248 db76 6d3b
2248 db76 463b 2248 db76 2c3b 2248 db76 1f3b 2248 db76 053b 2248 db76 eb3a
2248
db76 2c3b 2248 db76 123b 2248 db76 f83a 2248 db76 de3a 2248 db76 aa3a 2248
db76
763a 2248 db76 423a 2248 db76 d13a 2248 db76 903a 2248 db76 013a 2248 db76
e739
2248 557e

10/06/97 14:27:51 FLASHMESSAGE
7d96 f3e6 3a32 8b7e

....

DATA EXTRACTED FROM ADAS FILE:

COMMUNICATION CHARACTERISTICS:

```
..............................................................................
..
.  10-06-97  14:28:48  . Events:      0 . Responses:     0 .    DATAPOINT CMDS
.
..............................................................................
..
                    DISPLAY NLDN COMMUNICATIONS LU DATAPOINTS
                                              ALERT     ALARM
   DATAPOINT NAME        ID    VALUE        CURR PAST CURR PAST   LAST RESET

   CONNECTION STATUS:       01 CFG-ACTIVE                               10-06-97
14:25:41
   NLDN FAILURES TOTAL:    02           7                               10-06-97
14:25:41
   ERROR DETECTED:          03           0                              10-06-97
14:25:41
   ERROR DETECTED TOTAL:   04           0                               10-06-97
14:25:41


                ALERT THRESHOLDS                         ALARM THRESHOLDS
           UPPER         LOWER        ENAB          UPPER         LOWER         ENAB
             -1            -1          YES            -1            2            YES

..............................................................................
..
.  10-06-97   14:29:02  . Events:      0 . Responses:     0 .    DATAPOINT CMDS
.
..............................................................................
..
                    DISPLAY ITWS COMMUNICATION LU DATAPOINTS
                                              ALERT     ALARM
   DATAPOINT NAME        ID    VALUE        CURR PAST CURR PAST   LAST RESET

   CONNECTION STATUS:       01   CFG-ACTIVE                             10-06-97
14:25:41
   AWOS MESSAGES SENT:     02          30                               10-06-97
14:25:41
   AWOS ADU MSGS SENT:     03           2                               10-06-97
14:25:41
   LDD MESSAGES SENT:      04         101                               10-06-97
14:25:41
   LDD ADU SENT:            05          21                              10-06-97
14:25:41

                ALERT THRESHOLDS                         ALARM THRESHOLDS
           UPPER         LOWER        ENAB          UPPER         LOWER         ENAB
             -1            -1          YES            -1            2            YES
```

ADAS EVENT LOG FILE:

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:25:44
EVENT SEQ. NUMBER: 61     EVENT TYPE: 62      CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-active
```

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:26:52
EVENT SEQ. NUMBER: 447     EVENT TYPE: 62        CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-failed

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:27:03
EVENT SEQ. NUMBER: 449     EVENT TYPE: 62        CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-active

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:29:04
EVENT SEQ. NUMBER: 469     EVENT TYPE: 62        CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-failed

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:29:04
EVENT SEQ. NUMBER: 470     EVENT TYPE: 62        CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-active

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:31:05
EVENT SEQ. NUMBER: 486     EVENT TYPE: 62        CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-failed


EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:24:10
EVENT SEQ. NUMBER: 44     EVENT TYPE: 61        CSC ID: 21.01
Status of the ITWS connection has changed.

  site id: I001
  comm status: enabled-failed

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:25:18
EVENT SEQ. NUMBER: 50     EVENT TYPE: 61        CSC ID: 21.01
Status of the ITWS connection has changed.

  site id: I001
  comm status: enabled-active

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 10-06-97 14:30:58
EVENT SEQ. NUMBER: 483     EVENT TYPE: 61        CSC ID: 21.01
Status of the ITWS connection has changed.

  site id: I001
  comm status: enabled-failed
```

C.1.2.2. TCF Test Procedure Steps

The Following test procedure steps, referenced by evaluation criteria "a" of this test's Data Reduction and Analysis Method paragraph in the main body of this report, were extracted from test procedure file "AL-01B.TCF".

TEST ID: **AL-01B** TEST OPERATOR: _____HUGH H. VUONG_____________ DATE: 10_/06_/_97 TIME: _14:26_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports. [1-6A to 1-7A]	[X] Pass [ ] Fail	Insert Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS/IPS NLDN Monitor Port to the "live" NLDN display port.	The patch cable connects the ADAS/IPS NLDN Monitor Port to the "live" NLDN display port.	[X] Pass [ ] Fail	Stop Test
3.	@Patch Panel: verify that a patch cable re-directs the IPS LOG Port to the PSF-PC1 for data capture.	A cable patches the IPS LOG port to the PSF-PC1 port.	[X] Pass [ ] Fail	Insert Cable
4.	Patch Panel: verify that a patch cable re-directs the ADAS SEP Port to the PSF-PC2 for data capture.	A cable patches the SEP port to the PSF-PC2 port.	[X] Pass [ ] Fail	Insert Cable
5.	@PC1: start data capture. **"cap_data [space] AL-01B [RETURN]{wait}[RETURN]**.	The PSF-PC1 is configured to capture the IPS data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test
6.	@PC2: start data capture. **"cap_data [space] AL-01B [RETURN] {wait} [right] [del] [del] [del]** "com" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test
7.	On NLDN system clear flash buffer. Go to {Flash-buffer}**[F][C]**{clear}**[y]**.	Display should indicate no flash on the IUC	[X] Pass [ ] Fail	Stop Test
8.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The state of the ADAS apllication is displayed, followed by the 'adas' prompt.	[X] Pass [ ] Fail	Stop Test
9.	If the ADAS is not shutdown then -> @AUC 'adas' prompt: Issue the stop_adas command. **"stop_adas [RETURN]"**	The AUC indicates an emergency shutdown. The ASC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
10.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The state of the IPS application is displayed, followed by the 'aldars' prompt.	[X] Pass [ ] Fail	Stop Test

TEST ID: **AL-01B** TEST OPERATOR: _____HUGH H. VUONG____________ DATE: 10_/06_/_97 TIME: _14:26_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
11.	If IPS is not shutdown then -> @IUC 'aldars' prompt: Issue the command to Shutdown the IPS. **"stop_ips [RETURN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
12.	@IUC: enter **" ADR_On"**	Capture the data file(s) to the unix'/ temp' directory, and print the data when the test is finished.	[X] Pass [ ] Fail	Stop Test
13.	@IUC and @ AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY shoud be obtained from the 10 digits output by IPS @IUC in the previous step. Set the date and time to the same minute. Use the GMT from the NLDN monitor display.	IUC and AUC will display the entered date and time.	[X] Pass [ ] Fail	Stop Test
14.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
15.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
16.	@ISC display: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**.	The IPS test time offset is reset to 0.	**[X]** Pass [ ] Fail	Stop Test
17.	@AUC 'adas' prompt: enter **"cl 64"**	AUC Displays: Config 64 loaded	**[X]** Pass [ ] Fail	Stop Test
18.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Initialization State".	[X] Pass [ ] Fail	Stop Test
19.	Wait for ADAS to get to Operational State	Wait for "Specialist may login for the Operational State" to be displayed on AUC.	[X] Pass [ ] Fail	Stop Test
20.	@ISC ISI: start test **"AL-01"**. **"[F8] [F7] AL-01B [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [SPACE] [RETURN] [RETURN] {wait} [F14] [F14]"**	ISI Response: "Starting Test..." then --- --- | Start Test Request: Success | | The Test Started | --- ---	**[X]** Pass [ ] Fail	Stop Test
21.	@IUC wait for displaying successive multiple " S Pong 4 " received.	S Pong 4 indicates that ADAS communicate with DLP.	**[X]** Pass [ ] Fail	Stop Test
22.	@IUC ISI: enter **[F6] [F7]**	ISI display: "Ack after 45-50 secs after xfer to DLP to set start test flag".	**[X]** Pass [ ] Fail	Stop Test
23.	@ISC ISI: wait for the IPS clock displays @ 45-50 secs of the next mission cycle. Select **[F7]** .	Acknowledge event (start of the lightning script file).	**[X]** Pass [ ] Fail	Stop Test
24.	Record the time of test commencement below; as depicted on the ISI screen clock display, and the	Record the date/ time when select **'[F7]'**	**[X]** Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	current date based on Zulu time. Hr:_14_min:_26_sec:_46_ Date__10/06/97__	above.		
25.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts.	[X] Pass [ ] Fail	Stop Test
26.	@ASC: NLDN Communications datapoint, Select **[F10] [F7] [N] [RETURN] [F2] [F14]**.	The NLDN Communications Datapoints were printed.	[X] Pass [ ] Fail	Stop Test
27.	@ASC: ITWS1 Communications datapoint, Select **[F7] [I] [RETURN]** enter "ID = I001", **[RETURN] [F2] [F14] [F14]**.	The ITWS1 Interface Status	[X] Pass [ ] Fail	Stop Test
28.	@PC2: close Procomm software after capturing the test data. **{wait} [Alt-X] [RETURN]**.	Procomm Plus closes	[X] Pass [ ] Fail	Stop Test
29.	@PC2: start data capture. **"cap_data [space] AL-01B [RETURN]{wait}[right][del][del][del]** "evt" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS EVENT data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test
30.	Wait for Test to automatically end.	Expected Response @IUC: "**** ICP_CTLsta.c test_term() successfully ****"	[X] Pass [ ] Fail	Stop Test
31.	@ISI: Display the ITWS1 LDD Out Incomming Message Log (IML) to file. **"[F7] [F8] [F7] AL-01B [RETURN] [RETURN] [SPACE] [SPACE] [RETURN] [I] [DOWN] [RETURN]**.	File is display.	[X] Pass [ ] Fail	Stop Test
32.	@ISI: If the displayed message's IPS receive time is not greater the recorded start time plus 10 seconds (RECEIVE TIME(IPS):=> 10 secs), press **[F7]** to display the next record. Repeat **[F7]** until desired record is shown.	Record is shown.	[X] Pass [ ] Fail	Stop Test
33.	Verify that the MESSAGE SIZE does not exceed 4096 bytes.	Message size IAW ADAS/ITWS ICD	[X] Pass [ ] Fail	Stop Test
34.	@ISI: Press **[F10]** to print message in HEX **{wait} [F14] [F14]**.	HEX printout of record is sent to printer.	[X] Pass [ ] Fail	Stop Test
35.	@ISI: Output the ITWS1 LDD Output incomming Message Log (IML) to file. **"[F7] AL-01B [RETURN] [RETURN] [SPACE] [RETURN] [I] [DOWN] [RETURN] {wait} [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[X] Pass [ ] Fail	Stop Test
36.	@ISI: Output the NLDN LDD Output Outgoing Message Log (OML) to file. **"[F8] AL-01B [RETURN] [RETURN] [SPACE] [RETURN] [N] [RETURN] {wait} [F14] [F14] [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST ID: **AL-01B** TEST OPERATOR: _____HUGH H. VUONG____________ DATE: 10_/06_/_97 TIME: _14:26_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
37.	@ASC SI: Select **[F13] [F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 62 **[RETURN] [F14]**.	EVENT LOG for status of the NLDN connection has changed.	**[X]** Pass [ ] Fail	Stop Test
38.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 61 **[RETURN] [F14] [F14]**.	EVENT LOG for status of the ITWS connection has changed.	**[X]** Pass [ ] Fail	Stop Test
39.	@ISC ISI: Issue the command to Shutdown IPS. "**[F8] [F10] [SPACE] [RETURN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
40.	@ASC SI: Issue the command to Shutdown ADAS. "**[F7] [F8] [SPACE] [RETURN]**"	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
41.	@PC1: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[X]** Pass [ ] Fail	Stop Test
42.	@PC2: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[X]** Pass [ ] Fail	Stop Test
43.	@AUC: enter **"exit"**	The AUC displays a login prompt.	**[X]** Pass [ ] Fail	Stop Test
44.	@IUC: enter **"exit"**	The IUC displays a login prompt.	**[X]** Pass [ ] Fail	Stop Test

- - - - - **END OF TEST PROCEDURE** - - - - - **END OF TEST PROCEDURE** - - - - - **END OF TEST PROCEDURE** - - - - - **END OF TEST PROCEDURE** - - - - -

C.1.3. TEST AL-01C - ALDARS Interface

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.3.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[xx]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[xx]	[ ]	NLDN to ADAS (216 bits and 667 times/minute). CR01 NAS-SS-1000, Vol. II Table 3.2.1.5.8.3-T1k LSS2-024
c.	[xx]	[ ]	The correct receipt of these messages by the ITWS (216 bits and 667 times/minute). CR02 NAS-SS-1000,Vol. II Table 3.2.1.5.8.3-T111 ISS2-005
d.	[xx]	[ ]	ADAS support data collection from NLDN. CR03 NAS-SS-1000,Vol. II 3.2.1.5.8-2a LSS2-002.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into test AL-01C's Test Conduct Form (TCF) file, "AL-01C.TCF".

DATA EXTRACTED FROM IPS FILE:

```
......................................................................
..
.  07-30-97  19:38:52  . Events: 2    . Responses: 0    . Message Output Cmds
.
......................................................................
..
                         DISPLAY INPUT MESSAGE LOG

   INPUT MESSAGE:              19                                CR02

   RECEIVE TIME (IPS): 07/30/97 19:35:06
   RECEIVE TIME (ADAS):07/30/97 19:35:06
   SIMULATOR ID:                6
```

MESSAGE TYPE: ITWS1.LDD.MSG
MESSAGE SIZE: 110
GROUP ID: 19

HEX DUMP OF TEST FILE:

```
01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4c 44 55 53
30 31 20 41 43 54 59 20 33 30 31 39 33 35 20 00 00 00 0d 0d
0a 00 03 34 c0 38 b3 31 a9 74 d2 58 22 48 77 75 d2 58 22 48
ce 76 d2 58 22 48 92 74 d2 58 22 48 92 74 d2 58 22 48 92 74
d2 58 22 48 92 74 d2 58 22 48 92 74 d2 58 22 48 04 c0 38 b3
31 04 c0 38 b3 31 0d 0d 0a 03
```

ITWS1 LDD INCOMMING MESSAGE CR01

INPUT MESSAGE #: 19

RECEIVE TIME (IPS): 07/30/97 19:35:06
RECEIVE TIME (ADAS): 07/30/97 19:35:06
SIMULATOR ID: 6
MESSAGE TYPE: ITWS1_LDD_MSG
MESSAGE SIZE: 110
GROUP ID: 19
MESSAGE TYPE: ITWS1 LDD
HEADER: 0x01
TYPE: LD
GEOGRAPHIC DESIG: US
BULLETIN: 01
SITE ID: ACTY
DAY/HOUR/MINUTE: 30/19/35
Number of Messages 3
LDD FORMAT IN HEXDECIMAL

```
LENGTH INDICATOR   :34
DATE/TIME FIELD    :c0 38 b3 31
FLASH RECORD #01   :a9 74 d2 58 22 48
FLASH RECORD #02   :77 75 d2 58 22 48
FLASH RECORD #03   :ce 76 d2 58 22 48
FLASH RECORD #04   :92 74 d2 58 22 48
FLASH RECORD #05   :92 74 d2 58 22 48
FLASH RECORD #06   :92 74 d2 58 22 48
FLASH RECORD #07   :92 74 d2 58 22 48
FLASH RECORD #08   :92 74 d2 58 22 48

LENGTH INDICATOR   :04
DATE/TIME FIELD    :c0 38 b3 31

LENGTH INDICATOR   :04
DATE/TIME FIELD    :c0 38 b3 31
```

No more messages in this ADU

- -

INPUT MESSAGE #: 20

```
  RECEIVE TIME (IPS):     07/30/97 19:35:11
  RECEIVE TIME (ADAS):    07/30/97 19:35:11
  SIMULATOR ID:                  6
  MESSAGE TYPE:           ITWS1_LDD_MSG
  MESSAGE SIZE:                 52
  GROUP ID:                     20
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              01
  SITE ID:               ACTY
  DAY/HOUR/MINUTE:       30/19/35
  Number of Messages      1
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :04
DATE/TIME FIELD     :c0 38 b3 31
No more messages in this ADU

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
INPUT MESSAGE #:        21

  RECEIVE TIME (IPS):     07/30/97 19:35:21
  RECEIVE TIME (ADAS):    07/30/97 19:35:21
  SIMULATOR ID:                  6
  MESSAGE TYPE:           ITWS1_LDD_MSG
  MESSAGE SIZE:                 57
  GROUP ID:                     22
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              01
  SITE ID:               ACTY
  DAY/HOUR/MINUTE:       30/19/35
  Number of Messages      2
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :04
DATE/TIME FIELD     :c0 38 b3 31


LENGTH INDICATOR    :04
DATE/TIME FIELD     :c0 38 b3 31
No more messages in this ADU

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
INPUT MESSAGE #:        22

  RECEIVE TIME (IPS):     07/30/97 19:35:31
  RECEIVE TIME (ADAS):    07/30/97 19:35:31
  SIMULATOR ID:                  6
  MESSAGE TYPE:           ITWS1_LDD_MSG
  MESSAGE SIZE:                110
```

```
  GROUP ID:                          23
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                  0x01
  TYPE:                    LD
  GEOGRAPHIC DESIG:        US
  BULLETIN:                01
  SITE ID:                 ACTY
  DAY/HOUR/MINUTE:         30/19/35
  Number of Messages       3
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR   :04
DATE/TIME FIELD    :c0 38 b3 31


LENGTH INDICATOR   :34
DATE/TIME FIELD    :da 38 b3 31
FLASH RECORD #01   :92 74 c5 58 22 48
FLASH RECORD #02   :92 74 50 58 22 48
FLASH RECORD #03   :92 74 8d 57 22 48
FLASH RECORD #04   :92 74 d2 58 22 48
FLASH RECORD #05   :92 74 d2 58 22 48
FLASH RECORD #06   :92 74 d2 58 22 48
FLASH RECORD #07   :92 74 d2 58 22 48
FLASH RECORD #08   :92 74 d2 58 22 48


LENGTH INDICATOR   :04
DATE/TIME FIELD    :00 00 00 00
No more messages in this ADU

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
INPUT MESSAGE #:        23

  RECEIVE TIME (IPS):     07/30/97 19:35:36
  RECEIVE TIME (ADAS):    07/30/97 19:35:36
  SIMULATOR ID:                  6
  MESSAGE TYPE:           ITWS1_LDD_MSG
  MESSAGE SIZE:                 52
  GROUP ID:                     24
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                  0x01
  TYPE:                    LD
  GEOGRAPHIC DESIG:        US
  BULLETIN:                01
  SITE ID:                 ACTY
  DAY/HOUR/MINUTE:         30/19/35
  Number of Messages       1
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR   :04
DATE/TIME FIELD    :da 38 b3 31
No more messages in this ADU

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
INPUT MESSAGE #:        24
```

RECEIVE TIME (IPS): 07/30/97 19:35:41
RECEIVE TIME (ADAS): 07/30/97 19:35:41
SIMULATOR ID: 6
MESSAGE TYPE: ITWS1_LDD_MSG
MESSAGE SIZE: 57
GROUP ID: 25
MESSAGE TYPE: ITWS1 LDD
HEADER: 0x01
TYPE: LD
GEOGRAPHIC DESIG: US
BULLETIN: 01
SITE ID: ACTY
DAY/HOUR/MINUTE: 30/19/35
Number of Messages 2
LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR :04
DATE/TIME FIELD :da 38 b3 31

LENGTH INDICATOR :04
DATE/TIME FIELD :da 38 b3 31
No more messages in this ADU

- -
-
INPUT MESSAGE #: 25

RECEIVE TIME (IPS): 07/30/97 19:35:51
RECEIVE TIME (ADAS): 07/30/97 19:35:51
SIMULATOR ID: 6
MESSAGE TYPE: ITWS1_LDD_MSG
MESSAGE SIZE: 57
GROUP ID: 26
MESSAGE TYPE: ITWS1 LDD
HEADER: 0x01
TYPE: LD
GEOGRAPHIC DESIG: US
BULLETIN: 01
SITE ID: ACTY
DAY/HOUR/MINUTE: 30/19/35
Number of Messages 2
LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR :04
DATE/TIME FIELD :da 38 b3 31

LENGTH INDICATOR :04
DATE/TIME FIELD :da 38 b3 31
No more messages in this ADU

- -
-
INPUT MESSAGE #: 26

RECEIVE TIME (IPS): 07/30/97 19:35:56

```
RECEIVE TIME (ADAS):   07/30/97 19:35:56
SIMULATOR ID:                 6
MESSAGE TYPE:          ITWS1_LDD_MSG
MESSAGE SIZE:               105
GROUP ID:                    27
MESSAGE TYPE: ITWS1 LDD
HEADER:               0x01
TYPE:                 LD
GEOGRAPHIC DESIG:     US
BULLETIN:             01
SITE ID:              ACTY
DAY/HOUR/MINUTE:      30/19/35
Number of Messages     2
LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR   :34
DATE/TIME FIELD    :f3 38 b3 31
FLASH RECORD #01   :7b 74 d2 58 22 48
FLASH RECORD #02   :ad 73 d2 58 22 48
FLASH RECORD #03   :55 72 d2 58 22 48
FLASH RECORD #04   :92 74 d2 58 22 48
FLASH RECORD #05   :92 74 d2 58 22 48
FLASH RECORD #06   :92 74 d2 58 22 48
FLASH RECORD #07   :92 74 d2 58 22 48
FLASH RECORD #08   :92 74 d2 58 22 48

LENGTH INDICATOR   :04
DATE/TIME FIELD    :f3 38 b3 31
No more messages in this ADU
```

NLDN LDD OUTGOING MESSAGE CR01

```
07/30/97 19:35:00 FLASHMESSAGE
  7d96 c038 b331 a974 d258 2248 7775 d258 2248 ce76 d258 2248 9274 d258
  2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 6d7e

07/30/97 19:35:00 OTHER
  7d16 0000 0000 107d 107e 1010 1010 1010 1010 157e

07/30/97 19:35:00 FLASHMESSAGE
  7d96 c038 b331 ec7e

07/30/97 19:35:05 FLASHMESSAGE
  7d96 c038 b331 ec7e

07/30/97 19:35:10 FLASHMESSAGE
  7d96 c038 b331 ec7e

07/30/97 19:35:15 FLASHMESSAGE
  7d96 c038 b331 ec7e

07/30/97 19:35:20 FLASHMESSAGE
  7d96 c038 b331 ec7e

07/30/97 19:35:26 FLASHMESSAGE
```

```
  7d96 c038 b331 ec7e

07/30/97 19:35:26 FLASHMESSAGE
  7d96 da38 b331 9274 c558 2248 9274 5058 2248 9274 8d57 2248 9274 d258
  2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 337e

07/30/97 19:35:26 FLASHMESSAGE
  7d96 0000 1010 1010 107d 107e 1010 1010 1010 157e

07/30/97 19:35:26 FLASHMESSAGE
  7d96 0000 0000 107d 107e 1010 1010 1010 0085 7e20

07/30/97 19:35:26 FLASHMESSAGE
  7d96 da38 b331 f67e

07/30/97 19:35:31 FLASHMESSAGE
  7d96 da38 b331 f67e

07/30/97 19:35:36 FLASHMESSAGE
  7d96 da38 b331 f67e

07/30/97 19:35:41 FLASHMESSAGE
  7d96 da38 b331 f67e

07/30/97 19:35:46 FLASHMESSAGE
  7d96 da38 b331 f67e

07/30/97 19:35:51 FLASHMESSAGE
  7d96 da38 b331 f67e

07/30/97 19:35:51 FLASHMESSAGE
  7d96 f338 b331 7b74 d258 2248 ad73 d258 2248 5572 d258 2248 9274 d258
  2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 9274 d258 2248 cf7e

07/30/97 19:35:51 FLASHMESSAGE
  7d96 0000 0010 1010 7d10 7e10 1010 1010 1010 957e

07/30/97 19:35:51 FLASHMESSAGE
  7d96 f338 b331 df7e
.........
```

DATA EXTRACTED FROM ADAS FILE:

COMMUNICATIONS DATAPOINTS **CR01**

```
..............................................................................
.  07-30-97  19:36:10  . Events:     1 . Responses:     0 .   DATAPOINT CMDS
.
..............................................................................
                  DISPLAY NLDN COMMUNICATIONS LU DATAPOINTS
                                                 ALERT      ALARM
   DATAPOINT NAME        ID     VALUE         CURR PAST CURR PAST    LAST RESET
```

CONNECTION STATUS: 01 CFG-ACTIVE 07-30-97
19:32:58
NLDN FAILURES TOTAL: 02 13 07-30-97
19:32:58
ERROR DETECTED: 03 3 * 07-30-97
19:32:58
ERROR DETECTED TOTAL: 04 3 07-30-97
19:32:58

....
..
. 07-30-97 19:36:24 . Events: 4 . Responses: 0 . DATAPOINT CMDS
.
....
..

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					07-30-97 19:32:58
AWOS MESSAGES SENT:	02	30					07-30-97 19:32:58
AWOS ADU MSGS SENT:	03	2					07-30-97 19:32:58
LDD MESSAGES SENT:	04	107					07-30-97 19:32:58
LDD ADU SENT:	05	27					07-30-97 19:32:58

ADAS EVENT LOG FILE **CR01**

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:35:02
EVENT SEQ. NUMBER: 493 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: NLDN error message error code: Invalid message type
original csc id: 22.01 error number: 1
error offset: 0

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:35:29
EVENT SEQ. NUMBER: 500 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: NLDN error message error code: Invalid checksum
original csc id: 22.01 error number: 2
error offset: 30

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:35:29
EVENT SEQ. NUMBER: 501 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: NLDN error message error code: Invalid SOP-EOP sequence

original csc id: 22.01 error number: 3
error offset: 80

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:35:55
EVENT SEQ. NUMBER: 504 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: NLDN error message error code: Invalid DLE sequence
original csc id: 22.01 error number: 4
error offset: 119

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:36:20
EVENT SEQ. NUMBER: 517 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: NLDN error message error code: Invalid checksum
original csc id: 22.01 error number: 5
error offset: 169

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:36:20
EVENT SEQ. NUMBER: 518 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: NLDN error message error code: Invalid SOP sequence
original csc id: 22.01 error number: 6
error offset: 219

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:30:29
EVENT SEQ. NUMBER: 44 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:33:17
EVENT SEQ. NUMBER: 100 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:36:49
EVENT SEQ. NUMBER: 520 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 07-30-97 19:33:00
EVENT SEQ. NUMBER: 83 EVENT TYPE: 62 CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-active

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 07-30-97 19:34:51
EVENT SEQ. NUMBER: 490    EVENT TYPE: 62      CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-failed

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 07-30-97 19:35:02
EVENT SEQ. NUMBER: 492    EVENT TYPE: 62      CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-active

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 07-30-97 19:35:39
EVENT SEQ. NUMBER: 502    EVENT TYPE: 62      CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-failed

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 07-30-97 19:35:39
EVENT SEQ. NUMBER: 503    EVENT TYPE: 62      CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-active

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 07-30-97 19:36:49
EVENT SEQ. NUMBER: 521    EVENT TYPE: 62      CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-failed
```

C.1.3.2. TCF Test Procedure Steps

The Following test procedure steps, referenced by evaluation criteria "a" of this test's Data Reduction and Analysis Method paragraph in the main body of this report, were extracted from test procedure file "AL-01C.TCF".

TEST ID: **AL-01C** TEST OPERATOR: ______HUGH H. VUONG____________ DATE: _07/_30/_97 TIME: _19:_34_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports. [1-6A to 1-7A]	**[X]** Pass **[ ]** Fail	Insert Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS/IPS NLDN Monitor Port to the "live" NLDN display port.	The patch cable connects the ADAS/IPS NLDN Monitor Port to the "live" NLDN display port.	**[X]** Pass **[ ]** Fail	Stop Test
3.	@Patch Panel: verify that a patch cable re-directs the IPS LOG Port to the PSF-PC1 for data capture.	A cable patches the IPS LOG port to the PSF-PC1 port.	**[X]** Pass **[ ]** Fail	Insert Cable
4.	Patch Panel: verify that a patch cable re-directs the ADAS SEP Port to the PSF-PC2 for data capture.	A cable patches the SEP port to the PSF-PC2 port.	**[X]** Pass **[ ]** Fail	Insert Cable
5.	@PC1: start data capture. **"cap_data [space] AL-01C [RETURN]{wait}[RETURN]**.	The PSF-PC1 is configured to capture the IPS data output into a DOS ASCII file.	**[X]** Pass **[ ]** Fail	Stop Test
6.	@PC2: start data capture. **"cap_data [space] AL-01C [RETURN] {wait} [right] [del] [del] [del]** "com" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS data output into a DOS ASCII file.	**[X]** Pass **[ ]** Fail	Stop Test
7.	On NLDN system clear flash buffer. Go to {Flash-buffer}**[F][C]**{clear}**[y]**.	Display should indicate no flash on the IUC	**[X]** Pass **[ ]** Fail	Stop Test
8.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The state of the ADAS apllication is displayed, followed by the 'adas' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
9.	If the ADAS is not shutdown then -> @AUC 'adas' prompt: Issue the stop_adas command. **"stop_adas [RETURN]"**	The AUC indicates an emergency shutdown. The ASC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
10.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The state of the IPS application is displayed, followed by the 'aldars' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
11.	If IPS is not shutdown then -> @IUC 'aldars' prompt: Issue the command to Shutdown the IPS. **"stop_ips**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-01C** TEST OPERATOR: ______HUGH H. VUONG____________ DATE: _07/_30/_97 TIME: _19:_34_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN]"			
12.	@IUC: enter " **ADR_On**"	Capture the data file(s) to the unix'/ temp' directory, and print the data when the test is finished.	[X] Pass [ ] Fail	Stop Test
13.	@IUC and @ AUC enter **"setdate MMDDhhmmYY"** (MMDDhhmmYY shoud be obtained from the 10 digits output by IPS @IUC in the previous step. Set the date and time to the same minute. Use the GMT from the NLDN monitor display.	IUC and AUC will display the entered date and time.	[X] Pass [ ] Fail	Stop Test
14.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
15.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
16.	@ISC display: Reset the IPS test time offset. "**[F8] [F11] [SPACE] [RETURN] [F14]**".	The IPS test time offset is reset to 0.	[X] Pass [ ] Fail	Stop Test
17.	@AUC 'adas' prompt: enter **"cl 64"**	AUC Displays: Config 64 loaded	[X] Pass [ ] Fail	Stop Test
18.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Initialization State".	[X] Pass [ ] Fail	Stop Test
19.	Wait for ADAS to get to Operational State	Wait for "Specialist may login for the Operational State" to be displayed on AUC.	[X] Pass [ ] Fail	Stop Test
20.	@ISC ISI: start test **"AL-01"**. "**[F8] [F7] AL-01C [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [SPACE] [RETURN] [RETURN] {wait} [F14] [F14]**"	ISI Response: "Starting Test..." then --- --- | Start Test Request: Success | | The Test Started | --- ---	[X] Pass [ ] Fail	Stop Test
21.	@IUC wait for displaying successive multiple " S Pong 4 " received.	S Pong 4 indicates that ADAS communicate with DLP.	[X] Pass [ ] Fail	Stop Test
22.	@IUC ISI: enter **[F6] [F7]**	ISI display: "Ack after 45-50 secs after xfer to DLP to set start test flag".	[X] Pass [ ] Fail	Stop Test
23.	@ISC ISI: wait for the IPS clock displays @ 45-50 secs of the next mission cycle. Select **[F7]** .	Acknowledge event (start of the lightning script file).	[X] Pass [ ] Fail	Stop Test
24.	Record the time of test commencement below; as depicted on the ISI screen clock display, and the current date based on Zulu time.	Record the date/ time when select '**[F7]**' above.	[X] Pass [ ] Fail	Stop Test

TEST ID: **AL-01C** TEST OPERATOR: ______HUGH H. VUONG____________ DATE: _07/_30/_97 TIME: _19:_34_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	Hr:__19__min:_34___sec:_45_____ Date_____07/30/97___			
25.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts.	**[X]** Pass **[ ]** Fail	Stop Test
26.	@ASC: NLDN Communications datapoint, Select **[F10] [F7] [N] [RETURN] [F2] [F14]**.	The NLDN Communications Datapoints were printed.	**[X]** Pass **[ ]** Fail	Stop Test
27.	@ASC: ITWS1 Communications datapoint, Select **[F7] [I] [RETURN]** enter "ID = I001", **[RETURN] [F2] [F14] [F14]**.	The ITWS1 Interface Status	**[X]** Pass **[ ]** Fail	Stop Test
28.	@PC2: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes	**[X]** Pass **[ ]** Fail	Stop Test
29.	@PC2: start data capture. **"cap_data [space] AL-01C [RETURN]{wait}[right][del][del][del]** "evt" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS EVENT data output into a DOS ASCII file.	**[X]** Pass **[ ]** Fail	Stop Test
30.	Wait for Test to automatically end.	Expected Response @IUC: "**** ICP_CTLsta.c test_term() successfully ****"	**[X]** Pass **[ ]** Fail	Stop Test
31.	@ISI: Display the ITWS1 LDD Out Incomming Message Log (IML) to file. **"[F7] [F8] [F7] AL-01C [RETURN] [RETURN] [SPACE] [SPACE] [RETURN] [I] [DOWN] [RETURN]**.	File is display.	**[X]** Pass **[ ]** Fail	Stop Test
32.	@ISI: If the displayed message's IPS receive time is not greater the recorded start time plus 10 seconds (RECEIVE TIME(IPS):=> 10 secs), press **[F7]** to display the next record. Repeat **[F7]** until desired record is shown.	Record is shown.	**[X]** Pass **[ ]** Fail	Stop Test
33.	Verify that the MESSAGE SIZE does not exceed 4096 bytes.	Message size IAW ADAS/ITWS ICD	**[X]** Pass **[ ]** Fail	Stop Test
34.	@ISI: Press **[F10]** to print message in HEX **{wait} [F14] [F14]**.	HEX printout of record is sent to printer.	**[X]** Pass **[ ]** Fail	Stop Test
35.	@ISI: Output the ITWS1 LDD Output incomming Message Log (IML) to file. **"[F7] AL-01C [RETURN] [RETURN] [SPACE] [RETURN] [I] [DOWN] [RETURN] {wait} [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
36.	@ISI: Output the NLDN LDD Output Outgoing Message Log (OML) to file. **"[F8] AL-01C [RETURN] [RETURN] [SPACE] [RETURN] [N] [RETURN] {wait} [F14] [F14] [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
37.	@ASC SI: Select **[F13] [F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the	EVENT LOG for status of the NLDN connection has changed.	**[X]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-01C** TEST OPERATOR: ______HUGH H. VUONG____________ DATE: _07/_30/_97 TIME: _19:_34_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 62 **[RETURN][F14]**.			
38.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 61 **[RETURN][F14]**.	EVENT LOG for status of the ITWS connection has changed.	**[X]** Pass [ ] Fail	Stop Test
39.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 21 **[RETURN][F14][F14]**.	EVENT LOG for a invalid LDD message has been triggered by system logging.	**[X]** Pass [ ] Fail	Stop Test
40.	@ISC ISI: Issue the command to Shutdown IPS. "**[F8] [F10] [SPACE] [RETURN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
41.	@ASC SI: Issue the command to Shutdown ADAS. "**[F7] [F8] [SPACE] [RETURN]**"	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
42.	@PC1: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[X]** Pass [ ] Fail	Stop Test
43.	@PC2: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[X]** Pass [ ] Fail	Stop Test
44.	@AUC: enter "**exit**"	The AUC displays a login prompt.	**[X]** Pass [ ] Fail	Stop Test
45.	@IUC: enter "**exit**"	The IUC displays a login prompt.	**[X]** Pass [ ] Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.4. TEST AL-01D - ALDARS Interface

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.4.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[xx]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[xx]	[ ]	NLDN to ADAS (1200 baud, RS-232 cable). CR01 NAS-SS-1000, Vol II Figure 3.2.1.5.8.3-F1k LSS2-022.
c.	[xx]	[ ]	NLDN to ADAS (216 bits and 667 times/minute). CR02 NAS-SS-1000, Vol. II Table 3.2.1.5.8.3-T1k LSS2-024
d.	[xx]	[ ]	The correct receipt of these messages by the ITWS (216 bits and 667 times/minute).CR03 NAS-SS-1000,Vol. II Table 3.2.1.5.8.3-T111 ISS2-005

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relevant data has been included into test AL-01D's Test Conduct Form (TCF) file, "AL-01D.TCF".

DATA EXTRACTED FROM IPS FILE:

```
...........................................................................
..
.  08-11-97   13:36:06  . Events: 2    . Responses: 0     . Message Output Cmds
.
...........................................................................
..
                         DISPLAY INPUT MESSAGE LOG

  INPUT MESSAGE:           17

  RECEIVE TIME (IPS): 08/11/97 13:23:57     CR02
  RECEIVE TIME (ADAS):08/11/97 13:23:57
  SIMULATOR ID:              6
```

MESSAGE TYPE: ITWS1.LDD.MSG
MESSAGE SIZE: 90
GROUP ID: 17

HEX DUMP OF TEST FILE: CR03

```
01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4c 44 55 53
32 37 20 4b 41 43 59 20 31 31 31 33 32 33 20 00 00 00 0d 0d
0a 00 05 0a c9 d5 ca 31 7c 4c 32 36 97 81 0a ca d5 ca 31 8a
44 96 40 15 61 0a cb d5 ca 31 2e 7f ce 37 8b 33 04 cc d5 ca
31 04 cd d5 ca 31 0d 0d 0a 03
```

```
.......................................................................
..
.  08-11-97  13:37:49  . Events: 2    . Responses: 0    . Message Output Cmds
.
.......................................................................
..
```

DISPLAY INPUT MESSAGE LOG

INPUT MESSAGE: 15

RECEIVE TIME (IPS): 08/11/97 13:23:47 CR02
RECEIVE TIME (ADAS):08/11/97 13:23:47
SIMULATOR ID: 11
MESSAGE TYPE: ITWS6.LDD.MSG
MESSAGE SIZE: 107
GROUP ID: 15

HEX DUMP OF TEST FILE: CR03

```
01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4c 44 55 53
32 37 20 4b 41 43 59 20 31 31 31 33 32 33 20 00 00 00 0d 0d
0a 00 06 0a ba d5 ca 31 bc a6 79 17 8d 11 04 bb d5 ca 31 04
c0 d5 ca 31 16 c1 d5 ca 31 e8 7b 8c 38 8b 42 99 80 cf 3a 9a
66 06 80 23 3b 8b 71 04 c2 d5 ca 31 0a c3 d5 ca 31 2a 40 ff
3e 95 52 0d 0d 0a 03
```

ITWS1 LDD INCOMMING MESSAGE CR01

INPUT MESSAGE #: 17

RECEIVE TIME (IPS): 08/11/97 13:23:57
RECEIVE TIME (ADAS): 08/11/97 13:23:57
SIMULATOR ID: 6
MESSAGE TYPE: ITWS1 LDD MSG
MESSAGE SIZE: 90
GROUP ID: 17
MESSAGE TYPE: ITWS1 LDD
HEADER: 0x01
TYPE: LD
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 11/13/23
Number of Messages 5
LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR :0a

```
DATE/TIME FIELD    :c9 d5 ca 31
FLASH RECORD #01   :7c 4c 32 36 97 81

LENGTH INDICATOR   :0a
DATE/TIME FIELD    :ca d5 ca 31
FLASH RECORD #01   :8a 44 96 40 15 61

LENGTH INDICATOR   :0a
DATE/TIME FIELD    :cb d5 ca 31
FLASH RECORD #01   :2e 7f ce 37 8b 33

LENGTH INDICATOR   :04
DATE/TIME FIELD    :cc d5 ca 31

LENGTH INDICATOR   :04
DATE/TIME FIELD    :cd d5 ca 31
No more messages in this ADU

INPUT MESSAGE #:         15        CR01

  RECEIVE TIME (IPS):     08/11/97 13:23:47
  RECEIVE TIME (ADAS):    08/11/97 13:23:47
  SIMULATOR ID:                 11
  MESSAGE TYPE:           ITWS6 LDD MSG
  MESSAGE SIZE:                107
  GROUP ID:                     15
  MESSAGE TYPE: ITWS6 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              27
  SITE ID:               KACY
  DAY/HOUR/MINUTE:       11/13/23
  Number of Messages      6
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR   :0a
DATE/TIME FIELD    :ba d5 ca 31
FLASH RECORD #01   :bc a6 79 17 8d 11

LENGTH INDICATOR   :04
DATE/TIME FIELD    :bb d5 ca 31

LENGTH INDICATOR   :04
DATE/TIME FIELD    :c0 d5 ca 31

LENGTH INDICATOR   :16
DATE/TIME FIELD    :c1 d5 ca 31
FLASH RECORD #01   :e8 7b 8c 38 8b 42
FLASH RECORD #02   :99 80 cf 3a 9a 66
FLASH RECORD #03   :06 80 23 3b 8b 71

LENGTH INDICATOR   :04
DATE/TIME FIELD    :c2 d5 ca 31
```

```
LENGTH INDICATOR    :0a
DATE/TIME FIELD     :c3 d5 ca 31
FLASH RECORD #01    :2a 40 ff 3e 95 52
No more messages in this ADU
```

DATA EXTRACTED FROM LPMA FILE: CR01

....

***MON/DISK* BLK=00010 08/11/97 13:23 Page : 9**
ASCII/8/NONE/BOP

```
.....................................................................................
B4 D5 CA 31 0C 7E 7D 96 B5 D5 CA 31 0D 7E 7D 96 B6 D5 CA 31 0E 7E 7D 96 B7 D5
CA 31 62 43 1D 40 85
.....................................................................................
21 D7 7E 7D 96 B8 D5 CA 31 00 7E 7D 96 B9 D5 CA 31 01 7E 7D 96 BA D5 CA 31 BC
A6 79 17 8D 11 EA 7E
.....................................................................................    ITWS6 LDD
7D 96 BB D5 CA 31 03 7E 7D 96 C0 D5 CA 31 78 7E 7D 96 C1 D5 CA 31 E8 7B 8C 38
8B 42 99 80 CF 3A 9A
.....................................................................................
66 06 80 23 3B 8B 71 E3 7E 7D 96 C2 D5 CA 31 7A 7E 7D 96 C3 D5 CA 31 2A 40 FF
3E 95 52 17 7E 7D 96
.....................................................................................
```

***MON/DISK* BLK=00012 08/11/97 13:24 Page : 10**
ASCII/8/NONE/BOP

```
C4 D5 CA 31 7C 7E 7D 96 C5 D5 CA 31 5D A6 88 1B 90 32 B7 7E 7D 96 C6 D5 CA 31
18 10 7D 18 38 89 81
.....................................................................................
33 7E 7D 96 C7 D5 CA 31 7F 7E 7D 96 C8 D5 CA 31 E5 B2 50 17 B8 01 D9 7E 7D 96
C9 D5 CA 31 7C 4C 32
.....................................................................................
36 97 81 53 7E 7D 96 CA D5 CA 31 8A 44 96 40 15 61 1E 7E 7D 96 CB D5 CA 31 2E
7F CE 37 8B 33 63 7E
.....................................................................................
7D D0 86 56 59 61 62 63 B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 BA BD C8 C9 CA CB CC CD
CE CF D0 D2 D3 D4 D5    ITWS1 LDD
```

....
....

D6 D7 D8 D9 DA DB DC E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 EA EB EC ED EE EF F1 F3 F4
F9 FA C7 7E 7D D0 87
....
....

01 02 06 09 0B 12 17 18 1A 1C 1E 22 26 27 2B 2C 2E 55 57 58 64 65 68 6D 72 76
79 10 7E 81 83 88 89
....
....

8A 8B 8E 8F 92 94 95 97 98 99 9E A1 A5 A6 A7 A8 AA AB AC BB BC BE D1 F0 F2 F0
7E 7D 96 CC D5 CA 31
....
....

74 7E 7D 96 CD D5 CA 31 75 7E 7D 96 CE D5 CA 31 9E A6 15 17 92 52 8C 7E 7D 96
CF D5 CA 31 77 7E 7D
....
....

96 D0 D5 CA 31 68 7E 7D 96 D1 D5 CA 31 F5 43 C5 41 85 21 FF 7E 7D 96 D2 D5 CA
31 6A 7E 7D 96 D3 D5
....
....

....

DATA EXTRACTED FROM ADAS FILE:

COMMUNICATIONS DATAPOINTS CR01

....
..
. 08-11-97 13:24:42 . Events: 0 . Responses: 0 . DATAPOINT CMDS
.
....
..

DISPLAY NLDN COMMUNICATIONS LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					08-11-97 13:22:22
NLDN FAILURES TOTAL:	02	0					08-11-97 13:22:22
ERROR DETECTED:	03	0					08-11-97 13:22:22
ERROR DETECTED TOTAL:	04	0					08-11-97 13:22:22

ITWS1:
....
..

. 08-11-97 13:25:16 . Events: 4 . Responses: 0 . DATAPOINT CMDS
.
....
..

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					08-11-97 13:22:22
AWOS MESSAGES SENT:	02	100					08-11-97 13:22:22
AWOS ADU MSGS SENT:	03	2					08-11-97 13:22:22
LDD MESSAGES SENT:	04	367					08-11-97 13:22:23
LDD ADU SENT:	05	29					08-11-97 13:22:23

ITWS6:

....
..
. 08-11-97 13:25:48 . Events: 5 . Responses: 0 . DATAPOINT CMDS
.
....
..

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					08-11-97 13:22:23
AWOS MESSAGES SENT:	02	100					08-11-97 13:22:23
AWOS ADU MSGS SENT:	03	2					08-11-97 13:22:23
LDD MESSAGES SENT:	04	367					08-11-97 13:22:23
LDD ADU SENT:	05	29					08-11-97 13:22:23

ADAS EVENT LOG FILE **CR01**

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:22:24
EVENT SEQ. NUMBER: 73 EVENT TYPE: 62 CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:39:37
EVENT SEQ. NUMBER: 337 EVENT TYPE: 62 CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-failed

ADAS EVENT LOG FILE **CR01**

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-11-97 13:22:57
EVENT SEQ. NUMBER: 83    EVENT TYPE: 21        CSC ID: 11.02
An erroneous message has been triggered by System Logging.

  message type: ADAS received error message
  error type: NLDN error message    error code: Invalid message type
  original csc id: 22.01  error number: 10
  error offset: 270

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-11-97 13:23:59
EVENT SEQ. NUMBER: 2    EVENT TYPE: 21        CSC ID: 11.02
An erroneous message has been triggered by System Logging.

  message type: ADAS received error message
  error type: NLDN error message    error code: Invalid message type
  original csc id: 22.01  error number: 1
  error offset: 0

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-11-97 13:23:59
EVENT SEQ. NUMBER: 3    EVENT TYPE: 21        CSC ID: 11.02
An erroneous message has been triggered by System Logging.

  message type: ADAS received error message
  error type: NLDN error message    error code: Invalid message type
  original csc id: 22.01  error number: 2
  error offset: 30

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-11-97 13:24:59
EVENT SEQ. NUMBER: 16    EVENT TYPE: 21        CSC ID: 11.02
An erroneous message has been triggered by System Logging.

  message type: ADAS received error message
  error type: NLDN error message    error code: Invalid message type
  original csc id: 22.01  error number: 3
  error offset: 60

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-11-97 13:24:59
EVENT SEQ. NUMBER: 17    EVENT TYPE: 21        CSC ID: 11.02
An erroneous message has been triggered by System Logging.

  message type: ADAS received error message
  error type: NLDN error message    error code: Invalid message type
  original csc id: 22.01  error number: 4
  error offset: 90
```

ADAS EVENT LOG FILE **CR01**

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-11-97 13:16:35
EVENT SEQ. NUMBER: 44    EVENT TYPE: 61        CSC ID: 21.01
Status of the ITWS connection has changed.

  site id: I001
  comm status: enabled-failed

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-11-97 13:16:35
```

EVENT SEQ. NUMBER: 45 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:16:35
EVENT SEQ. NUMBER: 46 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:16:35
EVENT SEQ. NUMBER: 47 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:16:36
EVENT SEQ. NUMBER: 48 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:16:39
EVENT SEQ. NUMBER: 49 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:21:18
EVENT SEQ. NUMBER: 60 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:21:20
EVENT SEQ. NUMBER: 61 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:21:21
EVENT SEQ. NUMBER: 62 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:21:23
EVENT SEQ. NUMBER: 63 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:21:26
EVENT SEQ. NUMBER: 65 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:21:30
EVENT SEQ. NUMBER: 66 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:34:27
EVENT SEQ. NUMBER: 164 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:34:33
EVENT SEQ. NUMBER: 166 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:34:37
EVENT SEQ. NUMBER: 167 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:34:46
EVENT SEQ. NUMBER: 171 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-11-97 13:34:50
EVENT SEQ. NUMBER: 173 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-11-97 13:34:53
EVENT SEQ. NUMBER: 174    EVENT TYPE: 61      CSC ID: 21.01
Status of the ITWS connection has changed.

  site id: I005
  comm status: enabled-failed
```

C.1.4.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's Data Reduction and Analysis Method paragraph in the main body of this report, were extracted from test procedure file "AL-01D.TCF".

TEST ID: **AL-01D** TEST OPERATOR: ________HUGH H. VUONG__________ DATE: _08/11_/97_ TIME: 13_:23_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	Power on the IINTERVIEW AR 7200 LMPA and configure to: Line Setup: Mode: **MONITOR**; Source: **LINE** Code: **ASCII** Bits: **8** Parity: **NONE** Format: **ASYNC** Clock Source: **INTERNAL** Speed: 1200 Bit order/Polarity: **NORMAL** Display Setup: Display Mode: **DATA**; type: **DUAL** Record Setup: Capture Memory: **DISK**; Disk No: **FD1**; Data to Record: **CHAR**; Init. Cond: **RECORD**	Configure the LMPA to capture the link information.	**[X]** Pass **[ ]** Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	**[X]** Pass **[ ]** Fail	Insert Cable
3.	@Patch Panel: Verify that a patch cable connects the ADAS/NLDN port to the "live" NLDN Monitor port.	The patch cable connects the ADAS & NLDN's port.	**[X]** Pass **[ ]** Fail	Stop Test
4.	@Patch Panel: Verify that a patch cable connects the ADAS/NLDN Monitor port to the INTERVIEW LMPA port.	The patch cable connects the ADAS/IPS NLDN Monitor & INTERVIEW LMNPA's port.	**[X]** Pass **[ ]** Fail	Stop Test
5.	@Patch Panel: verify that a patch cable re-directs the IPS LOG Port to the PSF-PC1 for data capture.	A cable patches the IPS LOG port to the PSF-PC1 port.	**[X]** Pass **[ ]** Fail	Insert Cable
6.	Patch Panel: verify that a patch cable re-directs the ADAS SEP Port to the PSF-PC2 for data capture.	A cable patches the SEP port to the PSF-PC2 port.	**[X]** Pass **[ ]** Fail	Insert Cable
7.	**@PC1: start data capture. "cap_data [space] AL-01D [RETURN]{wait} [RETURN].**	The PSF-PC1 is configured to capture the IPS data output into a DOS ASCII file.	**[X]** Pass **[ ]** Fail	Stop Test
8.	@PC2: start data capture. **"cap_data [space] AL-01D [RETURN] {wait} [right] [del] [del] [del]** "com" **[RETURN].**	The PSF-PC2 is configured to capture the ADAS data output into a DOS ASCII file.	**[X]** Pass **[ ]** Fail	Stop Test
9.	To log into AUC enter: login: **"adas"**	The state of the ADAS aplication is displayed, followed by the 'adas' prompt.	**[X]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-01D**   TEST OPERATOR: ________HUGH H. VUONG_________   DATE: _08/11_/97_   TIME: 13_:23_   TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	password: **"adas123"**			
10.	If the ADAS is not shutdown then -> @AUC 'adas' prompt: Issue the stop_adas command. **"stop_adas [RETURN]"**	The AUC indicates an emergency shutdown. The ASC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
11.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The state of the IPS application is displayed, followed by the 'aldars' prompt.	**[X]** Pass [ ] Fail	Stop Test
12.	If IPS is not shutdown then -> @IUC 'aldars' prompt: Issue the command to Shutdown the IPS. **"stop_ips [RETURN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
13.	@IUC: enter **"set_itws_min"**	set the time for ITWSs capture the LDD messages	**[X]** Pass [ ] Fail	Stop Test
14.	@IUC: select **"2'**	set 10 minutes for ITWSs data.	**[X]** Pass [ ] Fail	Stop Test
15.	@IUC: enter **" ADR_On"**	Capture the data file(s) to the unix'/ temp' directory, and print the data when the test is finished.	**[X]** Pass [ ] Fail	Stop Test
16.	@IUC and @ AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY shoud be obtained from the 10 digits output by IPS @IUC in the previous step. Set the date and time to the same minute. Use the GMT from the NLDN monitor display.	IUC and AUC will display the entered date and time.	**[X]** Pass [ ] Fail	Stop Test
17.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login	**[X]** Pass [ ] Fail	Stop Test
18.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts.	**[X]** Pass [ ] Fail	Stop Test
19.	@ISC display: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**.	The IPS test time offset is reset to 0.	**[X]** Pass [ ] Fail	Stop Test
20.	@AUC 'adas' prompt: enter **"cl 65"**	AUC Displays: Config 65 loaded	**[X]** Pass [ ] Fail	Stop Test
21.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Initialization State".	**[X]** Pass [ ] Fail	Stop Test
22.	Wait for ADAS to get to Operational State	Wait for "Specialist may login for the Operational State" to be displayed on AUC.	**[X]** Pass [ ] Fail	Stop Test
23.	@ISC ISI: start test **"AL-01D"**. **"[F8] [F7] AL-01D [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN]**	ISI Response: "Starting Test..." then --- ---	**[X]** Pass [ ] Fail	Stop Test

TEST ID: **AL-01D** TEST OPERATOR: ________HUGH H. VUONG_________ DATE: _08/11_/97_ TIME: 13_:23_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN] [SPACE] [RETURN] [RETURN] {wait} [F14] [F14]"	| Start Test Request: Success | | The Test Started | --- ---		
24.	@IUC wait for displaying the first " S Pong " received.	S Pong indicates that ADAS communicate with IPS.	**[X]** Pass [ ] Fail	Stop Test
25.	@LMPA: enter the **"RUN"** key.	Starting to record the data.	**[X]** Pass [ ] Fail	Stop Test
26.	@IUC wait for displaying successive multiple " S Pong 4 " received.	S Pong 4 indicates that ADAS communicate with DLP.	**[X]** Pass [ ] Fail	Stop Test
27.	@IUC ISI: enter **[F6] [F7]**	ISI display: "Ack after 45-50 secs after xfer to DLP to set start test flag".	**[X]** Pass [ ] Fail	Stop Test
28.	@ISC ISI: wait for the IPS clock displays @ 45-50 secs of the next mission cycle. Select **[F7]** .	Acknowledge event (start of the lightning script file).	**[X]** Pass [ ] Fail	Stop Test
29.	Record the time of test commencement below; as depicted on the ISI screen clock display, and the current date based on Zulu time. Hr:_13___min:_23___sec:_45_____ Date__8/11/97__	Record the date/ time when select **'[F7]'** above.	**[X]** Pass [ ] Fail	Stop Test
30.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts.	**[X]** Pass [ ] Fail	Stop Test
31.	@LMPA: After accumulating a few LMPA screen's worth of information, select the key **[FREEZE]**.	Verify that the LDD Message is the ASCII coded information structure.	**[X]** Pass [ ] Fail	Stop Test
32.	@ASC: NLDN Communications datapoint, Select **[F10] [F7] [N] [RETURN] [F2] [F14]**.	The NLDN Communications Datapoints were printed.	**[X]** Pass [ ] Fail	Stop Test
33.	@ASC: ITWS1 Communications datapoint, Select **[F7] [I] [RETURN]** enter "ID = I001", **[RETURN] [F2] [F14]**.	The ITWS1 Interface Status	**[X]** Pass [ ] Fail	Stop Test
34.	@ASC: ITWS6 Communications datapoint, Select **[F7] [I] [RETURN]** enter "ID = I006", **[RETURN] [F2] [F14]**.	The ITWS6 Interface Status	**[X]** Pass [ ] Fail	Stop Test
35.	@PC2: close Procomm software after capturing the test data. **{wait} [Alt-X] [RETURN]**.	Procomm Plus closes	**[X]** Pass [ ] Fail	Stop Test
36.	@PC2: start data capture. **"cap_data [space] AL-01D [RETURN]{wait}[right][del][del][del]** "evt" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS EVENT data output into a DOS ASCII file.	**[X]** Pass [ ] Fail	Stop Test
37.	Wait for Test to automatically end.	Expected Response @IUC: "**** ICP_CTLsta.c test_term() successfully ****"	**[X]** Pass [ ] Fail	Stop Test

TEST ID: **AL-01D** TEST OPERATOR: _______HUGH H. VUONG_________ DATE: _08/11_/97_ TIME: 13_:23_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
38.	@LMPA: enter the "PROGRAM" key.	The LMPA is stopped to capture the LDD data.	[X] Pass [ ] Fail	Stop Test
39.	@ISI: Display the ITWS1 LDD Out Incomming Message Log (IML) to file. "**[F7] [F8] [F7] AL-01D [RETURN] [RETURN] [SPACE] [SPACE] [RETURN]** [I] [DOWN] **[RETURN]**.	File is display.	[X] Pass [ ] Fail	Stop Test
40.	@ISI: If the displayed message's IPS receive time is not greater the recorded start time plus 10 seconds (RECEIVE TIME(IPS):=> 10 secs), press **[F7]** to display the next record. Repeat **[F7]** until desired record is shown.	Record is shown.	[X] Pass [ ] Fail	Stop Test
41.	Verify that the MESSAGE SIZE does not exceed 4096 bytes.	Message size IAW ADAS/ITWS ICD	[X] Pass [ ] Fail	Stop Test
42.	@ISI: Press **[F10]** to print message in HEX **{wait} [F14] [F14]**.	HEX printout of record is sent to printer.	[X] Pass [ ] Fail	Stop Test
43.	@ISI: Display the ITWS6 LDD Out Incomming Message Log (IML) to file. "**[F7] AL-01D [RETURN][RETURN] [SPACE] [SPACE] [RETURN]** [I] **[RIGHT] [RIGHT] [DOWN] [DOWN] [DOWN] [RETURN]**.	File is display.	[X] Pass [ ] Fail	Stop Test
44.	@ISI: If the displayed message's IPS receive time is not greater the recorded start time plus 10 seconds (RECEIVE TIME(IPS):=> 10 secs), press **[F7]** to display the next record. Repeat **[F7]** until desired record is shown.	Record is shown.	[X] Pass [ ] Fail	Stop Test
45.	Verify that the MESSAGE SIZE does not exceed 4096 bytes.	Message size IAW ADAS/ITWS ICD	[X] Pass [ ] Fail	Stop Test
46.	@ISI: Press **[F10]** to print message in HEX **{wait} [F14] [F14]**.	HEX printout of record is sent to printer.	[ ] Pass [ ] Fail	Stop Test
47.	@ISI: Output the ITWS1 LDD Output incomming Message Log (IML) to file. "**[F7] AL-01C [RETURN] [RETURN] [SPACE] [RETURN]** [I] **[DOWN] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[X] Pass [ ] Fail	Stop Test
48.	@ISI: Output the ITWS6 LDD Output incomming Message Log (IML) to file. "**[F7] AL-01C [RETURN] [RETURN] [SPACE] [RETURN]** [I] **[RIGHT] [RIGHT] [DOWN] [DOWN] [DOWN] [RETURN] {wait} [F14] [F14] [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[X] Pass [ ] Fail	Stop Test
49.	@ASC SI: Select **[F13] [F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 62	EVENT LOG for status of the NLDN connection has changed.	[X] Pass [ ] Fail	Stop Test

TEST ID: **AL-01D** TEST OPERATOR: ________HUGH H. VUONG__________ DATE: _08/11_/97_ TIME: 13_:23_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN][F14].			
50.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 21 **[RETURN][F14]**.	EVENT LOG for a invalid LDD message has been triggered by system logging.	**[X]** Pass **[ ]** Fail	Stop Test
51.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 61 **[RETURN][F14][F14]**.	EVENT LOG for status of the ITWS connection has changed.	**[X]** Pass **[ ]** Fail	Stop Test
52.	@ISC ISI: Issue the command to Shutdown IPS. "**[F8] [F10] [SPACE] [RETURN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
53.	@ASC SI: Issue the command to Shutdown ADAS. "**[F7] [F8] [SPACE] [RETURN]**"	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
54.	@PC1: close Procomm software after capturing the test data. **{wait} [Alt-X] [RETURN]**.	Procomm Plus closes.	**[X]** Pass **[ ]** Fail	Stop Test
55.	@PC2: close Procomm software after capturing the test data. **{wait} [Alt-X] [RETURN]**.	Procomm Plus closes.	**[X]** Pass **[ ]** Fail	Stop Test
56.	@AUC: enter **"exit"**	The AUC displays a login prompt.	**[X]** Pass **[ ]** Fail	Stop Test
57.	@IUC: enter **"exit"**	The IUC displays a login prompt.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.5. TEST AL-02A

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.5.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed, and the test data was capture to a DOS ASCII file on the PSF-PC.
b.	[X]	[ ]	ADAS processed lightning data acquired from outside the NAS. CR01 {LSS2-001}
c.	[X]	[ ]	ADAS processed data from NLDN. CR02 {LSS2-003}
d.	[X]	[ ]	ADAS stored lightning data. CR03 {LSS2-004}
e.	[X]	[ ]	ADAS maintained lightning data database.CR04 {LSS2-006}
f.	[X]	[ ]	ADAS calculated proximity of lightning strike to the AWOS service location within the ACF. CR05 {LSS2-008}
g.	[X]	[ ]	ADAS generated a message indicating that lightning was active, when the lightning had occurred within the defined geographical areas surrounding the AWOS location.CR06 {LSS2-009}
h.	[X]	[ ]	ADAS maintained the status of lightning activity movement for the AWOS service location for a period of 15 minutes. CR07 {LSS2-010}
i.	[X]	[ ]	ADAS maintained the status of lightning activity for the AWOS service location for 15 minutes and identified the cessation of lightning activity. CR08 {LSS2-011}
j.	[X]	[ ]	ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes. CR09 {LSS2-016} [NOTE: ADAS maintains these counts internally and therefore it can only be determined through code inspections. Code inspections were performed at DT&E and will not be performed during OT&E. However, ADAS LAD messages do maintain a 15 minute persistence for lightning activity for each Zone/Sector. Therefore a "PASS" indication for this and the next three criteria will indicate that this capability was verified.]
k.	[X]	[ ]	ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that

occurred at radius 5nm and within of the Airport Reference Point (ARP). CR10 {LSS2-017} [See "NOTE" for requirement LSS2-016].

l. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the Airport Reference Point (ARP). CR11 {LSS2-018} [See "NOTE" for requirement LSS2-016].

m. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for each of the eight sectors within a ring of radius between 10nm to 30nm of the Airport Reference Point (ARP). The eight sectors correspond to the eight cardinal points. CR12 {LSS2-019} [See "NOTE" for requirement LSS2-016].

All relevant OT&E formal test run data has been included into test files:

OT&E #1: al-02a-1.it1: CR01, CR02
al-02a-1.lad: CR01 - CR12
al-02a-1.nld: CR01, CR02

OT&E #2: al-02a-1.cap: Supports OT&E #1 CRs

C.1.5.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-02A.TCF".

TEST ID: **AL-02A** TEST OPERATOR: Don Groot DATE: 1/8/98 TIME: 13:25 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[x] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS and the NLDN display ports.	Within 15 seconds the NLDN display should indicate "communications link down".	[x] Pass [ ] Fail	Stop Test
3.	On NLDN system clear flash buffer. Go to [Flash-buffer] [Clear] [Y].	Main NLDN display should indicate no flashes in the flash buffer.	[x] Pass [ ] Fail	Stop Test
4.	On NLDN system set mode and status. Go to [Animate]. Set mode to "Real-time" and status to "Running".	Main NLDN display should indicate mode as Real-time.	[x] Pass [ ] Fail	Stop Test
5.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	[x] Pass [ ] Fail	Stop Test
6.	@IUC enter **"grep reboot $1/*.log"**	If a reboot is necessary, then search will display "reboot" in one of these files. If reboot is necessary stop procedures, reboot IPS, and then start procedure over.	[x] Pass [ ] Fail	Stop Test
7.	@IUC enter: **"cp $1/icp_err.log $1/al-log/icp_err.al-02A"** **"cp $1/irt_err.log $1/al-log/irt_err.al-02A"** **"cp $1/isi_err.log $1/al-log/isi_err.al-02A"** **"cp $1/iss_err.log $1/al-log/iss_err.al-02A"**	All files should copy into $1/al-log directory. Ie. no error messages should appear.	[x] Pass [ ] Fail	Stop Test
8.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	[x] Pass [ ] Fail	Stop Test
9.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running...	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		Configuration xx is loaded." OR "The ADAS application is shutdown"		
10.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	[x] Pass [ ] Fail	Stop Test
11.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	[x] Pass [ ] Fail	Stop Test
12.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.}	IUC and AUC will display the updated date and time.	[x] Pass [ ] Fail	Stop Test
13.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: IPS logon is now permitted.	[x] Pass [ ] Fail	Stop Test
14.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	[x] Pass [ ] Fail	Stop Test
15.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	[x] Pass [ ] Fail	Stop Test
16.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded	[x] Pass [ ] Fail	Stop Test
17.	@ISC ISI: start test "AL-02A". **"[F8] [F7] AL-02A [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	[x] Pass [ ] Fail	Stop Test
18.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	[x] Pass [ ] Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	[x] Pass [ ] Fail	Stop Test
20.	Wait at IUC for termination of displaying successive multiple "S Pong 4: xxxx bytes received", (where xxxx is at max a four digit integer number). NOTE: If not careful this is easy to miss as it only happens the first mission cycle once communications with ADAS are established.	IUC Response: Successive, multiple "S Pong 4: xxxx bytes received" are displayed.	[x] Pass [ ] Fail	Stop Test
21.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-02A** TEST OPERATOR: Don Groot DATE: 1/8/98 TIME: 13:25 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
22.	@ISC ISI: Determine that Test started properly.	ISI Response: --- --- 	Start Test Request: Success
The Test Started	 --- ---	[x] Pass [ ] Fail	Stop Test
23.	@ISC ISI: To View Event Message **"[F14] [F14] [F6] [F7]"**	ISI Response: " Acknowledge to start test! (Note: Ack between 45 and 50 secs of miss cycle)"	[x] Pass [ ] Fail	Stop Test
24.	@ISC ISI: Wait for IPS clock (seconds) to display between 45 and 50 seconds of the mission cycle.	ISI Response: Clock displays between 45 and 50 seconds.	[x] Pass [ ] Fail	Stop Test
25.	@IUC ISI: Acknowledge event to disable lightning standard file and start al-02a lightning script. **"[F7] [F14] "**	IUC Response: "OPENED /usr/adas/ipsrun/data/script/al-xx" . . . "just opened /dev/tty14"	[x] Pass [ ] Fail	Stop Test
26.	Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/8/98 Hr:13 Min:36 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
27.	Wait for Test to automatically end.	Expected Response @IUC: "**** test_term() successfully ****"	[x] Pass [ ] Fail	Stop Test
28.	Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date: 1/8/98 Hr:15 Min:30 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
29.	@ISC ISI: Output to file the OML: NLDN LDD Message. **"[F7] [F8] [F8] AL-02A [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'NLDN LDD Message'} [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test
30.	@ISC ISI: Output to file the IML: AWOS LAD, long format. **"[F7] [F8] [F7] AL-02A [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'}**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN] [RETURN] {wait} [F14] [F14] [F14]"			
31.	@ISC ISI: Output to file the IML: ITWS1 LDD, long format. **"[F7] [F8] [F7] AL-02A [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS1 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
32.	@ISC ISI: Output to file the IML: ITWS2 LDD, long format. **"[F7] [F8] [F7] AL-02A [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS2 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
33.	@ISC ISI: Output to file the IML: ITWS3 LDD, long format. **"[F7] [F8] [F7] AL-02A [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS3 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
34.	@ISC ISI: Output to file the IML: ITWS4 LDD, long format. **"[F7] [F8] [F7] AL-02A [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS4 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
35.	@ISC ISI: Output to file the IML: ITWS5 LDD, long format. **"[F7] [F8] [F7] AL-02A [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS5 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
36.	@ISC ISI: Output to file the IML: ITWS6 LDD, long format. **"[F7] [F8] [F7] AL-02A [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS6 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
37.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
38.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for PC1.	Capture file opened properly and patch cable set for PC1.	**[x]** Pass **[ ]** Fail	Stop Test
39.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
40.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test
41.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.6. TEST AL-02B

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.6.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[X]	[ ]	ADAS processed lightning data acquired from outside the NAS. CR01 {LSS2-001}
c.	[X]	[ ]	ADAS processed data from NLDN. CR02 {LSS2-003}
d.	[X]	[ ]	ADAS stored lightning data. CR03 {LSS2-004}
e.	[X]	[ ]	ADAS maintained lightning data database.CR04 {LSS2-006}
f.	[X]	[ ]	ADAS calculated proximity of lightning strike to the AWOS service location within the ACF. CR05 {LSS2-008}
g.	[X]	[ ]	ADAS generated a message indicating that lightning was active, when the lightning had occurred within the defined geographical areas surrounding the AWOS location.CR06 {LSS2-009}
h.	[X]	[ ]	ADAS maintained the status of lightning activity movement for the AWOS service location for a period of 15 minutes. CR07 {LSS2-010}
i.	[P]	[ ]	ADAS maintained the status of lightning activity for the AWOS service location for 15 minutes and identified the cessation of lightning activity. CR08 {LSS2-011} PTR OTE-054
j.	[X]	[ ]	ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes. CR09 {LSS2-016} [NOTE: ADAS maintains these counts internally and therefore it can only be determined through code inspections. Code inspections were performed at DT&E and will not be performed during OT&E. However, ADAS LAD messages do maintain a 15 minute persistence for lightning activity for each Zone/Sector.

Therefore a "PASS" indication for this and the next three criteria will indicate that this capability was verified.]

k. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred at radius 5nm and within of the Airport Reference Point (ARP). CR10 {LSS2-017} [See "NOTE" for requirement LSS2-016].

l. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the Airport Reference Point (ARP). CR11 {LSS2-018} [See "NOTE" for requirement LSS2-016].

m. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for each of the eight sectors within a ring of radius between 10nm to 30nm of the Airport Reference Point (ARP). The eight sectors correspond to the eight cardinal points. CR12 {LSS2-019} [See "NOTE" for requirement LSS2-016].

n. [X] [ ] live AWOS correctly reported the occurrence of lightning that occurred at radius 5nm and within of the ARP as 0x40 and LTG AT ARPT. CR13 {LSS3-006}

o. [X] [ ] live AWOS correctly reported the occurrence of lightning that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the ARP as 0x80 and LTG VCNTY. CR14 {LSS3-007}

p. [X] [ ] live AWOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x40 and "LTG DSNT W" CR15 {LSS3-008}

q. [X] [ ] live AWOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x60 and "LTG DSNT SW AND W" CR16 {LSS3-008}

r. [X] [ ] live AWOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x70 and "LTG DSNT S - W" CR17 {LSS3-008}

s. [X] [ ] live AWOS correclty reported the occurrence of lightning between 10 to 30nm of the ARP as 0x30 and "LTG DSNT S AND SW" CR18 {LSS3-008}

t. [X] [ ] live AWOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x58 and "LTG DSNT SE - W" CR19 {LSS3-008}

u. [X] [ ] live AWOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x4a and "LTG DSNT NE AND SE AND W" CR20 {LSS3-008}

v. [X] [ ] live AWOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x1e and "LTG DSNT NE - S" CR21 {LSS3-008}

w. [X] [ ] live AWOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as "LTG DSNT ALQDS" CR22 {LSS3-008}

x. [X] [ ] live AWOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x4 and "LTG DSNT E" CR23 {LSS3-008}

y. [X] [ ] live ASOS correctly reported the occurrence of lightning that occurred at radius 5nm and within of the ARP as 0x40 and LTG AT ARPT. CR24 {LSS3-006}

z. [X] [ ] live ASOS correctly reported the occurrence of lightning that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the ARP as 0x80 and LTG VCNTY. CR25 {LSS3-007}

aa. [X] [ ] live ASOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x40 and "LTG DSNT W" CR26 {LSS3-008}

bb. [X] [ ] live ASOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x60 and "LTG DSNT SW AND W" CR27 {LSS3-008}

cc. [X] [ ] live ASOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x70 and "LTG DSNT S - W" CR28 {LSS3-008}

dd. [X] [ ] live ASOS correclty reported the occurrence of lightning between 10 to 30nm of the ARP as 0x30 and "LTG DSNT S AND SW" CR29 {LSS3-008}

ee. [X] [ ] live ASOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x58 and "LTG DSNT SE - W" CR30 {LSS3-008}

ff. [X] [ ] live ASOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x4a and "LTG DSNT NE AND SE AND W" CR31 {LSS3-008}

gg. [X] [ ] live ASOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x1e and "LTG DSNT NE - S" CR32 {LSS3-008}

hh. [X] [ ] live ASOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as "LTG DSNT ALQDS" CR33 {LSS3-008}

ii. [X] [ ] live ASOS correctly reported the occurrence of lightning between 10 to 30nm of the ARP as 0x4 and "LTG DSNT E" CR34 {LSS3-008}

jj. [X] [ ] ADAS disseminated current LAD to AWOS/ASOS once per minute and AWOS/ASOS incorporated LAD into OMO. CR37 {LSS2-014, LSS2-020, LSS3-002, LSS3-004, LSS3-005}

kk. [X] [ ] The AWOS identified the thunderstorms in the surface observation by reporting remotely sensed lightning detection data (sent to the AWOS in the LAD message). CR38 (LSS3-001)

ll. [X] [ ] The ASOS identified the thunderstorms in the surface observation by reporting remotely sensed lightning detection data (sent to the ASOS in the LAD message). CR39 (LSS3-001)

All relevant OT&E formal test run data has been included into test files:

OT&E #1: al-02b-2.cap: CR01 - CR12, & CR15
al-02b-2.aai: CR24 - CR35
al-02b-2.otis: CR13 - CR23 & CR35

OT&E #2: al-02b-2.cap: CR08 (OTE-054)

C.1.6.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-02B.TCF".

TEST ID: **AL-02B** TEST OPERATOR: Don Groot DATE: 1/8/98 TIME: 16:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[x] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS and the NLDN display ports.	Within 15 seconds the NLDN display should indicate "communications link down".	[x] Pass [ ] Fail	Stop Test
3.	On NLDN system clear flash buffer. Go to [Flash-buffer] [Clear] [Y].	Main NLDN display should indicate no flashes in the flash buffer.	[x] Pass [ ] Fail	Stop Test
4.	On NLDN system set mode and status. Go to [Animate]. Set mode to "Real-time" and status to "Running".	Main NLDN display should indicate mode as Real-time.	[x] Pass [ ] Fail	Stop Test
5.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	[x] Pass [ ] Fail	Stop Test
6.	@IUC enter **"grep reboot $1/*.log"**	If a reboot is necessary, then search will display "reboot" in one of these files. If reboot is necessary stop procedures, reboot IPS, and then start procedure over.	[x] Pass [ ] Fail	Stop Test
7.	@IUC enter: **"cp $1/icp_err.log $1/al-log/icp_err.al-02B"** **"cp $1/irt_err.log $1/al-log/irt_err.al-02B"** **"cp $1/isi_err.log $1/al-log/isi_err.al-02B"** **"cp $1/iss_err.log $1/al-log/iss_err.al-02B"**	All files should copy into $1/al-log directory. Ie. no error messages should appear.	[x] Pass [ ] Fail	Stop Test
8.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	[x] Pass [ ] Fail	Stop Test
9.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running...	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		Configuration xx is loaded." OR "The ADAS application is shutdown"		
10.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	**[x]** Pass **[ ]** Fail	Stop Test
11.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	**[x]** Pass **[ ]** Fail	Stop Test
12.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.}	IUC and AUC will display the updated date and time.	**[x]** Pass **[ ]** Fail	Stop Test
13.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: IPS logon is now permitted.	**[x]** Pass **[ ]** Fail	Stop Test
14.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	**[x]** Pass **[ ]** Fail	Stop Test
15.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	**[x]** Pass **[ ]** Fail	Stop Test
16.	@AUC 'adas' prompt: enter **"cl 66"**	AUC Displays: Config 66 loaded	**[x]** Pass **[ ]** Fail	Stop Test
17.	@ISC ISI: start test "AL-02B". **"[F8] [F7] AL-02B [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	**[x]** Pass **[ ]** Fail	Stop Test
18.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	**[x]** Pass **[ ]** Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	**[x]** Pass **[ ]** Fail	Stop Test
20.	Wait at IUC for termination of displaying successive multiple "S Pong 4: xxxx bytes received", (where xxxx is at max a four digit integer number). NOTE: If not careful this is easy to miss as it only happens the first mission cycle once communications with ADAS are established.	IUC Response: Successive, multiple "S Pong 4: xxxx bytes received" are displayed.	**[x]** Pass **[ ]** Fail	Stop Test
21.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	**[x]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-02B** TEST OPERATOR: Don Groot DATE: 1/8/98 TIME: 16:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
22.	@ISC ISI: Determine that Test started properly.	ISI Response: --- --- | Start Test Request: Success | | The Test Started | --- ---	[x] Pass [ ] Fail	Stop Test
23.	@ISC ISI: To View Event Message **"[F14] [F14] [F6] [F7]"**	ISI Response: " Acknowledge to start test! (Note: Ack between 45 and 50 secs of miss cycle)"	[x] Pass [ ] Fail	Stop Test
24.	@ISC ISI: Wait for IPS clock (seconds) to display between 45 and 50 seconds of the mission cycle.	ISI Response: Clock displays between 45 and 50 seconds.	[x] Pass [ ] Fail	Stop Test
25.	@IUC ISI: Acknowledge event to disable lightning standard file and start al-02B lightning script. **"[F7] [F14] "**	IUC Response: "OPENED /usr/adas/ipsrun/data/script/al-xx" . . . "just opened /dev/tty14"	[x] Pass [ ] Fail	Stop Test
26.	Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/8/98 Hr:16 Min:16 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
27.	Wait for Test to automatically end.	Expected Response @IUC: "**** test_term() successfully ****"	[x] Pass [ ] Fail	Stop Test
28.	Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/8/98 Hr:17 Min:50 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
29.	@ISC ISI: Output to file the OML: NLDN LDD Message. **"[F7] [F8] [F8] AL-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'NLDN LDD Message'} [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test
30.	@ISC ISI: Output to file the IML: AWOS LAD, long format. **"[F7] [F8] [F7] AL-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'}**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN] [RETURN] {wait} [F14] [F14] [F14]"			
31.	@ISC ISI: Output to file the IML: ITWS1 LDD, long format. **"[F7] [F8] [F7] AL-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS1 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
32.	@ISC ISI: Output to file the IML: ITWS2 LDD, long format. **"[F7] [F8] [F7] AL-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS2 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
33.	@ISC ISI: Output to file the IML: ITWS3 LDD, long format. **"[F7] [F8] [F7] AL-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS3 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
34.	@ISC ISI: Output to file the IML: ITWS4 LDD, long format. **"[F7] [F8] [F7] AL-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS4 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
35.	@ISC ISI: Output to file the IML: ITWS5 LDD, long format. **"[F7] [F8] [F7] AL-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS5 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
36.	@ISC ISI: Output to file the IML: ITWS6 LDD, long format. **"[F7] [F8] [F7] AL-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS6 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
37.	@ISC ISI: Output to file the IML: DLP, long format. **"[F7] [F8] [F7] Al-02B [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'DLP'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
38.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test
39.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for PC1.	Capture file opened properly and patch cable set for PC1.	**[x]** Pass [ ] Fail	Stop Test
40.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test

41.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	**[x]** Pass	**[ ]** Fail	Stop Test
42.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	**[x]** Pass	**[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.7. TEST AL-02C

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.7.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[X]	[ ]	ADAS processed lightning data acquired from outside the NAS. CR01 {LSS2-001}
c.	[X]	[ ]	ADAS processed data from NLDN. CR02 {LSS2-003}
d.	[X]	[ ]	ADAS stored lightning data. CR03 {LSS2-004}
e.	[X]	[ ]	ADAS maintained lightning data database.CR04 {LSS2-006}
f.	[X]	[ ]	ADAS calculated proximity of lightning strike to the AWOS service location within the ACF. CR05 {LSS2-008}
g.	[X]	[ ]	ADAS generated a message indicating that lightning was active, when the lightning had occurred within the defined geographical areas surrounding the AWOS location.CR06 {LSS2-009}
h.	[X]	[ ]	ADAS maintained the status of lightning activity movement for the AWOS service location for a period of 15 minutes. CR07 {LSS2-010}
i.	[P]	[ ]	ADAS maintained the status of lightning activity for the AWOS service location for 15 minutes and identified the cessation of lightning activity. CR08 {LSS2-011} PTR OTE-052
j.	[X]	[ ]	ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes. CR09 {LSS2-016} [NOTE: ADAS maintains these counts internally and therefore it can only be determined through code inspections. Code inspections were performed at DT&E and will not be performed during OT&E. However, ADAS LAD messages do maintain a 15 minute persistence for lightning activity for each Zone/Sector. Therefore a "PASS" indication for this and the next three criteria will indicate that this capability was verified.]

k. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred at radius 5nm and within of the Airport Reference Point (ARP). CR10 {LSS2-017} [See "NOTE" for requirement LSS2-016].

l. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the Airport Reference Point (ARP). CR11 {LSS2-018} [See "NOTE" for requirement LSS2-016].

m. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for each of the eight sectors within a ring of radius between 10nm to 30nm of the Airport Reference Point (ARP). The eight sectors correspond to the eight cardinal points. CR12 {LSS2-019} [See "NOTE" for requirement LSS2-016].

n. [X] [ ] live AWOS correctly reported the occurrence of lightning that occurred at radius 5nm and within of the ARP as 0x40 and LTG AT ARPT. CR13 {LSS3-006}

o. [X] [ ] live AWOS correctly reported the occurrence of lightning that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the ARP as 0x80 and LTG VCNTY. CR14 {LSS3-007}

p. [X] [ ] live AWOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x1 and "LTG DSNT N" CR15 {LSS3-008}

q. [X] [ ] live AWOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0X2 and "LTG DSNT NE" CR16 {LSS3-008}

r. [X] [ ] live AWOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x4 and "LTG DSNT E" CR17 {LSS3-008}

s. [X] [ ] live AWOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x8 and "LTG DSNT SE" CR18 {LSS3-008}

t. [X] [ ] live AWOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x10 and "LTG DSNT S" CR19 {LSS3-008}

u. [X] [ ] live AWOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x20 and "LTG DSNT SW" CR20 {LSS3-008}

v. [X] [ ] live AWOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x40 and "LTG DSNT W" CR21 {LSS3-008}

w. [X] [ ] live AWOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x80 and "LTG DSNT NW" CR22 {LSS3-008}

x. [X] [ ] live ASOS correctly reported the occurrence of lightning that occurred at radius 5nm and within of the ARP as 0x40 and LTG AT ARPT. CR23 {LSS3-006}.

y. [X] [ ] live ASOS correctly reported the occurrence of lightning that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the ARP as 0x80 and LTG VCNTY. CR24 {LSS3-007}

z. [X] [ ] live ASOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x1 and "LTG DSNT N" CR25 {LSS3-008}

aa. [X] [ ] live ASOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x2 and "LTG DSNT NE" CR26 {LSS3-008}

bb. [X] [ ] live ASOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x4 and "LTG DSNT E" CR27 {LSS3-008}

cc. [X] [ ] live ASOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x8 and "LTG DSNT SE" CR28 {LSS3-008}

dd. [X] [ ] live ASOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x10 and "LTG DSNT S" CR29 {LSS3-008}

ee. [X] [ ] live ASOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x20 and "LTG DSNT SW" CR30 {LSS3-008}

ff. [X] [ ] live ASOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x40 and "LTG DSNT W" CR31 {LSS3-008}

gg. [X] [ ] live ASOS reported the occurrence of lightning between 10 to 30nm of the ARP as 0x80 and "LTG DSNT NW" CR32 {LSS3-008}

hh. [X] [ ] ADAS disseminated current LAD to AWOS/ASOS once per minute and AWOS/ASOS incorporated LAD into OMO. CR33 {LSS2-014, LSS2-020, LSS3-002, LSS3-004, LSS3-005}

ii. [P] [ ] The ASOS identified the thunderstorms in the surface observation by reporting remotely sensed lightning detection data (sent to the AWOS in the LAD message). CR34 {LSS3-001} PTR OTE-037

jj. [X] [ ] The AWOS identified the thunderstorms in the surface observation by reporting remotely sensed lightning detection data (sent to the ASOS in the LAD message). CR35 {LSS3-001}

All relevant OT&E formal test run data has been included into test files:

OT&E #1:
al-02c-3.cap: CR01 - CR12 & CR33
al-02c-3.aai: CR23 - CR33
al-02c-3.otis: CR13 - CR22
al-02c-4.cap: OTE-028

OT&E #2:
al-02c-1.cap: CR08 (OTE-052), OTE-010 & -032, OTE-008
al-06-1.cap: OTE-031

C.1.7.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-02C.TCF".

TEST ID: **Al-02C** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 15:15 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[x] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS and the NLDN display ports.	Within 15 seconds the NLDN display should indicate "communications link down".	[x] Pass [ ] Fail	Stop Test
3.	On NLDN system clear flash buffer. Go to [Flash-buffer] [Clear] [Y].	Main NLDN display should indicate no flashes in the flash buffer.	[x] Pass [ ] Fail	Stop Test
4.	On NLDN system set mode and status. Go to [Animate]. Set mode to "Real-time" and status to "Running".	Main NLDN display should indicate mode as Real-time.	[x] Pass [ ] Fail	Stop Test
5.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	[x] Pass [ ] Fail	Stop Test
6.	@IUC enter **"grep reboot $1/*.log"**	If a reboot is necessary, then search will display "reboot" in one of these files. If reboot is necessary stop procedures, reboot IPS, and then start procedure over.	[x] Pass [ ] Fail	Stop Test
7.	@IUC enter: **"cp $1/icp_err.log $1/al-log/icp_err.al-02c"** **"cp $1/irt_err.log $1/al-log/irt_err.al-02c"** **"cp $1/isi_err.log $1/al-log/isi_err.al-02c"** **"cp $1/iss_err.log $1/al-log/iss_err.al-02c"**	All files should copy into $1/al-log directory. Ie. no error messages should appear.	[x] Pass [ ] Fail	Stop Test
8.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	[x] Pass [ ] Fail	Stop Test
9.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running...	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		Configuration xx is loaded." OR "The ADAS application is shutdown"		
10.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	[x] Pass [ ] Fail	Stop Test
11.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	[x] Pass [ ] Fail	Stop Test
12.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.}	IUC and AUC will display the updated date and time.	[x] Pass [ ] Fail	Stop Test
13.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: IPS logon is now permitted.	[x] Pass [ ] Fail	Stop Test
14.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	[x] Pass [ ] Fail	Stop Test
15.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	[x] Pass [ ] Fail	Stop Test
16.	@AUC 'adas' prompt: enter **"cl 66"**	AUC Displays: Config 66 loaded	[x] Pass [ ] Fail	Stop Test
17.	@ISC ISI: start test "A1-02C". **"[F8] [F7] A1-02C [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	[x] Pass [ ] Fail	Stop Test
18.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	[x] Pass [ ] Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	[x] Pass [ ] Fail	Stop Test
20.	Wait at IUC for termination of displaying successive multiple "S Pong 4: xxxx bytes received", (where xxxx is at max a four digit integer number). NOTE: If not careful this is easy to miss as it only happens the first mission cycle once communications with ADAS are established.	IUC Response: Successive, multiple "S Pong 4: xxxx bytes received" are displayed.	[x] Pass [ ] Fail	Stop Test
21.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	[x] Pass [ ] Fail	Stop Test

TEST ID: **A1-02C** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 15:15 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
22.	@ISC ISI: Determine that Test started properly.	ISI Response: --- --- | Start Test Request: Success | | The Test Started | --- ---	[x] Pass [ ] Fail	Stop Test
23.	@ISC ISI: To View Event Message **"[F14] [F14] [F6] [F7]"**	ISI Response: " Acknowledge to start test! (Note: Ack between 45 and 50 secs of miss cycle)"	[x] Pass [ ] Fail	Stop Test
24.	@ISC ISI: Wait for IPS clock (seconds) to display between 45 and 50 seconds of the mission cycle.	ISI Response: Clock displays between 45 and 50 seconds.	[x] Pass [ ] Fail	Stop Test
25.	@IUC ISI: Acknowledge event to disable lightning standard file and start al-02c lightning script. **"[F7] [F14] "**	IUC Response: "OPENED /usr/adas/ipsrun/data/script/al-xx" . . . "just opened /dev/tty14"	[x] Pass [ ] Fail	Stop Test
26.	Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/12/98 Hr:15 Min:31 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
27.	Wait for Test to automatically end.	Expected Response @IUC: "**** test_term() successfully ****"	[x] Pass [ ] Fail	Stop Test
28.	Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/12/98 Hr:18 Min:14 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
29.	@ISC ISI: Output to file the OML: NLDN LDD Message. **"[F7] [F8] [F8] AL-02C [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'NLDN LDD Message'} [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test
30.	@ISC ISI: Output to file the IML: AWOS LAD, long format. **"[F7] [F8] [F7] A1-02C [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'}**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test

TEST ID: **A1-02C** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 15:15 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN] [RETURN] {wait} [F14] [F14] [F14]"			
31.	@ISC ISI: Output to file the IML: DLP, long format. "**[F7] [F8] [F7] A1-02C [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'DLP'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
32.	@ISC ISI: Output to file the IML: WMSCR METAR, long format. "**[F7] [F8] [F7] A1-02C [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'WMSCR METAR'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
33.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test
34.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for PC1.	Capture file opened properly and patch cable set for PC1.	**[x]** Pass [ ] Fail	Stop Test
35.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test
36.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	**[x]** Pass [ ] Fail	Stop Test
37.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	**[x]** Pass [ ] Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.8. TEST AL-03

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.8.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[X]	[ ]	ADAS processed lightning data acquired from outside the NAS. CR01 {LSS2-001}
c.	[X]	[ ]	ADAS processed data from NLDN. CR02 {LSS2-003}
d.	[X]	[ ]	ADAS stored lightning data. CR03 {LSS2-004}
e.	[X]	[ ]	ADAS maintained lightning data database.CR04 {LSS2-006}
f.	[X]	[ ]	ADAS calculated proximity of lightning strike to the AWOS service location within the ACF. CR05 {LSS2-008}
g.	[X]	[ ]	ADAS generated a message indicating that lightning was active, when the lightning had occurred within the defined geographical areas surrounding the AWOS location.CR06 {LSS2-009}
h.	[X]	[ ]	ADAS maintained the status of lightning activity movement for the AWOS service location for a period of 15 minutes. CR07 {LSS2-010}
i.	[X]	[ ]	ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes. CR08 {LSS2-016} [NOTE: ADAS maintains these counts internally and therefore it can only be determined through code inspections. Code inspections were performed at DT&E and will not be performed during OT&E. However, ADAS LAD messages do maintain a 15 minute persistence for lightning activity for each Zone/Sector. Therefore a "PASS" indication for this and the next three criteria will indicate that this capability was verified.]
j.	[X]	[ ]	ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred at radius 5nm and within of the Airport Reference Point (ARP). CR09 {LSS2-017} [See "NOTE" for requirement LSS2-016].

k. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the Airport Reference Point (ARP). CR10 {LSS2-018} [See "NOTE" for requirement LSS2-016].

l. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for each of the eight sectors within a ring of radius between 10nm to 30nm of the Airport Reference Point (ARP). The eight sectors correspond to the eight cardinal points. CR11 {LSS2-019}

All relevant OT&E formal test run data has been included into test files:

OT&E #1: al-03-2.cap: CR01 - CR11
al-03-2.nld: CR01 & CR02
OT&E #2: al-03-1.cap: Support OT&E #1 CRs.

C.1.8.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-03.TCF".

TEST ID: **AL-03** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 19:05 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[x] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS and the NLDN display ports.	Within 15 seconds the NLDN display should indicate "communications link down".	[x] Pass [ ] Fail	Stop Test
3.	On NLDN system clear flash buffer. Go to [Flash-buffer] [Clear] [Y].	Main NLDN display should indicate no flashes in the flash buffer.	[x] Pass [ ] Fail	Stop Test
4.	On NLDN system set mode and status. Go to [Animate]. Set mode to "Real-time" and status to "Running".	Main NLDN display should indicate mode as Real-time.	[x] Pass [ ] Fail	Stop Test
5.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	[x] Pass [ ] Fail	Stop Test
6.	@IUC enter **"grep reboot $1/*.log"**	If a reboot is necessary, then search will display "reboot" in one of these files. If reboot is necessary stop procedures, reboot IPS, and then start procedure over.	[x] Pass [ ] Fail	Stop Test
7.	@IUC enter: **"cp $1/icp_err.log $1/al-log/icp_err.al-03"** **"cp $1/irt_err.log $1/al-log/irt_err.al-03"** **"cp $1/isi_err.log $1/al-log/isi_err.al-03"** **"cp $1/iss_err.log $1/al-log/iss_err.al-03"**	All files should copy into $1/al-log directory. Ie. no error messages should appear.	[x] Pass [ ] Fail	Stop Test
8.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	[x] Pass [ ] Fail	Stop Test
9.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running... Configuration xx is loaded." OR	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-03** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 19:05 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		"The ADAS application is shutdown"		
10.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	**[x]** Pass [ ] Fail	Stop Test
11.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	**[x]** Pass [ ] Fail	Stop Test
12.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** (MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.)	IUC and AUC will display the updated date and time.	**[x]** Pass [ ] Fail	Stop Test
13.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: IPS logon is now permitted	**[x]** Pass [ ] Fail	Stop Test
14.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	**[x]** Pass [ ] Fail	Stop Test
15.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	**[x]** Pass [ ] Fail	Stop Test
16.	@AUC 'adas' prompt: enter **"cl 58"**	AUC Displays: Config 58 loaded	**[x]** Pass [ ] Fail	Stop Test
17.	@ISC ISI: start test "AL-03". **"[F8] [F7] AL-03 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	**[x]** Pass [ ] Fail	Stop Test
18.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	**[x]** Pass [ ] Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	**[x]** Pass [ ] Fail	Stop Test
20.	Wait at IUC for termination of displaying successive multiple "S Pong 4: xxxx bytes received", (where xxxx is at max a four digit integer number). NOTE: If not careful this is easy to miss as it only happens the first mission cycle once communications with ADAS are established.	IUC Response: Successive, multiple "S Pong 4: xxxx bytes received" are displayed.	**[x]** Pass [ ] Fail	Stop Test
21.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	**[x]** Pass [ ] Fail	Stop Test

TEST ID: **AL-03** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 19:05 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
22.	@ISC ISI: Determine that Test started properly.	ISI Response: --- --- | Start Test Request: Success | | The Test Started | --- ---	[x] Pass [ ] Fail	Stop Test
23.	@ISC ISI: To View Event Message **"[F14] [F14] [F6] [F7]"**	ISI Response: " Acknowledge to start test! (Note: Ack between 45 and 50 secs of miss cycle)"	[x] Pass [ ] Fail	Stop Test
24.	@ISC ISI: Wait for IPS clock (seconds) to display between 45 and 50 seconds of the mission cycle.	ISI Response: Clock displays between 45 and 50 seconds.	[x] Pass [ ] Fail	Stop Test
25.	@IUC ISI: Acknowledge event to disable lightning standard file and start al-03 lightning script. "**[F7] [F14]** "	IUC Response: "OPENED /usr/adas/ipsrun/data/script/al-xx" . . . "just opened /dev/tty14"	[x] Pass [ ] Fail	Stop Test
26.	Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/12/98 Hr:19 Min:12 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
27.	Wait for Test to automatically end.	Expected Response @IUC: "**** test_term() successfully ****"	[x] Pass [ ] Fail	Stop Test
28.	Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/12/98 Hr:19 Min:26 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
29.	@ISC ISI: Output to file the OML: NLDN LDD Message. **"[F7] [F8] [F8] AL-03 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'NLDN LDD Message'} [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test
30.	@ISC ISI: Output to file the IML: AWOS LAD, long format. **"[F7] [F8] [F7] AL-03 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'}**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-03** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 19:05 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN] [RETURN] {wait} [F14] [F14] [F14]"			
31.	@ISC ISI: Output to file the IML: ITWS1 LDD, long format. **"[F7] [F8] [F7] AL-03 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS1 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
32.	@ISC ISI: Output to file the IML: ITWS2 LDD, long format. **"[F7] [F8] [F7] AL-03 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS2 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
33.	@ISC ISI: Output to file the IML: ITWS3 LDD, long format. **"[F7] [F8] [F7] AL-03 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS3 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
34.	@ISC ISI: Output to file the IML: ITWS4 LDD, long format. **"[F7] [F8] [F7] AL-03 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS4 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
35.	@ISC ISI: Output to file the IML: ITWS5 LDD, long format. **"[F7] [F8] [F7] AL-03 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS5 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
36.	@ISC ISI: Output to file the IML: ITWS6 LDD, long format. **"[F7] [F8] [F7] AL-03 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS6 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
37.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test
38.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test
39.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	**[x]** Pass [ ] Fail	Stop Test
40.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	**[x]** Pass [ ] Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.9. TEST AL-04

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.9.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[X]	[ ]	ADAS processed data from NLDN. CR01 {LSS2-003}
c.	[X]	[ ]	ADAS calculated proximity of lightning strike to the AWOS service location within the ACF. CR02 {LSS2-008}
d.	[X]	[ ]	ADAS generated a message indicating that lightning was active, when the lightning had occurred within the defined geographical areas surrounding the AWOS location. CR03 {LSS2-009}

All relevant OT&E formal test run data has been included into test files:

OT&E #1: al-04-1.cap: CR01 - CR03
OT&E #2: al-04-1.cap: Support OT&E #1 CRs

C.1.9.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-04.TCF".

TEST ID: **AL-04** TEST OPERATOR: Don Groot DATE: 1/29/98 TIME: 20:50 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[x] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS and the NLDN display ports.	Within 15 seconds the NLDN display should indicate "communications link down".	[x] Pass [ ] Fail	Stop Test
3.	On NLDN system clear flash buffer. Go to [Flash-buffer] [Clear] [Y].	Main NLDN display should indicate no flashes in the flash buffer.	[x] Pass [ ] Fail	Stop Test
4.	On NLDN system set mode and status. Go to [Animate]. Set mode to "Real-time" and status to "Running".	Main NLDN display should indicate mode as Real-time.	[x] Pass [ ] Fail	Stop Test
5.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	[x] Pass [ ] Fail	Stop Test
6.	@IUC enter **"grep reboot $1/*.log"**	If a reboot is necessary, then search will display "reboot" in one of these files. If reboot is necessary stop procedures, reboot IPS, and then start procedure over.	[x] Pass [ ] Fail	Stop Test
7.	@IUC enter: **"cp $1/icp_err.log $1/al-log/icp_err.al-04"** **"cp $1/irt_err.log $1/al-log/irt_err.al-04"** **"cp $1/isi_err.log $1/al-log/isi_err.al-04"** **"cp $1/iss_err.log $1/al-log/iss_err.al-04"**	All files should copy into $1/al-log directory. Ie. no error messages should appear.	[x] Pass [ ] Fail	Stop Test
8.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	[x] Pass [ ] Fail	Stop Test
9.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running...	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		Configuration xx is loaded." OR "The ADAS application is shutdown"		
10.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	[x] Pass [ ] Fail	Stop Test
11.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	[x] Pass [ ] Fail	Stop Test
12.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.}	IUC and AUC will display the updated date and time.	[x] Pass [ ] Fail	Stop Test
13.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: IPS logon is now permitted.	[x] Pass [ ] Fail	Stop Test
14.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	[x] Pass [ ] Fail	Stop Test
15.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	[x] Pass [ ] Fail	Stop Test
16.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded	[x] Pass [ ] Fail	Stop Test
17.	@ISC ISI: start test "AL-04". **"[F8] [F7] AL-04 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	[x] Pass [ ] Fail	Stop Test
18.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	[x] Pass [ ] Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	[x] Pass [ ] Fail	Stop Test
20.	Wait at IUC for termination of displaying successive multiple "S Pong 4: xxxx bytes received", (where xxxx is at max a four digit integer number). NOTE: If not careful this is easy to miss as it only happens the first mission cycle once communications with ADAS are established.	IUC Response: Successive, multiple "S Pong 4: xxxx bytes received" are displayed.	[x] Pass [ ] Fail	Stop Test
21.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-04** TEST OPERATOR: Don Groot DATE: 1/29/98 TIME: 20:50 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
22.	@ISC ISI: Determine that Test started properly.	ISI Response: --- --- | Start Test Request: Success | | The Test Started | --- ---	**[x]** Pass **[ ]** Fail	Stop Test
23.	@ISC ISI: To View Event Message "**[F14] [F14] [F6] [F7]**"	ISI Response: " Acknowledge to start test! (Note: Ack between 45 and 50 secs of miss cycle)"	**[x]** Pass **[ ]** Fail	Stop Test
24.	@ISC ISI: Wait for IPS clock (seconds) to display between 45 and 50 seconds of the mission cycle.	ISI Response: Clock displays between 45 and 50 seconds.	**[x]** Pass **[ ]** Fail	Stop Test
25.	@IUC ISI: Acknowledge event to disable lightning standard file and start al-04 lightning script. "**[F7] [F14]** "	IUC Response: "OPENED /usr/adas/ipsrun/data/script/al-xx" . . . "just opened /dev/tty14"	**[x]** Pass **[ ]** Fail	Stop Test
26.	Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/29/98 Hr:21 Min:01 Sec:00	Date/time entered.	**[x]** Pass **[ ]** Fail	Stop Test
27.	Wait for Test to automatically end.	Expected Response @IUC: "**** test_term() successfully ****"	**[x]** Pass **[ ]** Fail	Stop Test
28.	Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:1/29/98 Hr:21 Min:04 Sec:00	Date/time entered.	**[x]** Pass **[ ]** Fail	Stop Test
29.	@ISC ISI: Output to file the IML: AWOS LAD, long format. "**[F7] [F8] [F7] AL-04 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
30.	@ISC ISI: Output to file the OML: NLDN LDD Message. "**[F7] [F8] [F8] AL-04 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'NLDN LDD Message'} [RETURN]**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-04**   TEST OPERATOR: Don Groot   DATE: 1/29/98   TIME: 20:50   TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	{wait} [F14] [F14] [F14]"			
31.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
32.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for PC1.	Capture file opened properly and patch cable set for PC1.	**[x]** Pass **[ ]** Fail	Stop Test
33.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
34.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test
35.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.10. TEST AL-05

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.10.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[ ]	[X]	ADAS calculated proximity of lightning strike to the AWOS service location within the ACF. CR01 {LSS2-008} PTR OTE-038
c.	[ ]	[X]	ADAS generated a message indicating that lightning was active, when the lightning had occurred within the defined geographical areas surrounding the AWOS location. CR02 {LSS2-009} PTR OTE-038
d.	[X]	[ ]	ADAS disseminated current LDD to each ITWS once per minute. CR03 {LSS2-014}

All relevant OT&E formal test run data has been included into test files:

OT&E #1: al-05-1.cap: CR01 - CR03
OT&E #2: al-05-1.cap: Support OT&E #1 CRs

C.1.10.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-05.TCF".

TEST ID: **AL-05** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 20:12 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[x] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS and the NLDN display ports.	Within 15 seconds the NLDN display should indicate "communications link down".	[x] Pass [ ] Fail	Stop Test
3.	On NLDN system clear flash buffer. Go to [Flash-buffer] [Clear] [Y].	Main NLDN display should indicate no flashes in the flash buffer.	[x] Pass [ ] Fail	Stop Test
4.	On NLDN system set mode and status. Go to [Animate]. Set mode to "Real-time" and status to "Running".	Main NLDN display should indicate mode as Real-time.	[x] Pass [ ] Fail	Stop Test
5.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	[x] Pass [ ] Fail	Stop Test
6.	@IUC enter **"grep reboot $1/*.log"**	If a reboot is necessary, then search will display "reboot" in one of these files. If reboot is necessary stop procedures, reboot IPS, and then start procedure over.	[x] Pass [ ] Fail	Stop Test
7.	@IUC enter: **"cp $1/icp_err.log $1/al-log/icp_err.al-05"** **"cp $1/irt_err.log $1/al-log/irt_err.al-05"** **"cp $1/isi_err.log $1/al-log/isi_err.al-05"** **"cp $1/iss_err.log $1/al-log/iss_err.al-05"**	All files should copy into $1/al-log directory. Ie. no error messages should appear.	[x] Pass [ ] Fail	Stop Test
8.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	[x] Pass [ ] Fail	Stop Test
9.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running...	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		Configuration xx is loaded." OR "The ADAS application is shutdown"		
10.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	[x] Pass [ ] Fail	Stop Test
11.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	[x] Pass [ ] Fail	Stop Test
12.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.}	IUC and AUC will display the updated date and time.	[x] Pass [ ] Fail	Stop Test
13.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: IPS logon is now permitted.	[x] Pass [ ] Fail	Stop Test
14.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	[x] Pass [ ] Fail	Stop Test
15.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	[x] Pass [ ] Fail	Stop Test
16.	@AUC 'adas' prompt: enter **"cl 59"**	AUC Displays: Config 59 loaded	[x] Pass [ ] Fail	Stop Test
17.	@ISC ISI: start test "AL-05". **"[F8] [F7] AL-05 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	[x] Pass [ ] Fail	Stop Test
18.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	[x] Pass [ ] Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	[x] Pass [ ] Fail	Stop Test
20.	Wait at IUC for termination of displaying successive multiple "S Pong 4: xxxx bytes received", (where xxxx is at max a four digit integer number). NOTE: If not careful this is easy to miss as it only happens the first mission cycle once communications with ADAS are established.	IUC Response: Successive, multiple "S Pong 4: xxxx bytes received" are displayed.	[x] Pass [ ] Fail	Stop Test
21.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-05** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 20:12 TEST DIRECTOR'S INITIALS ____

<table>
<tr><th>Step</th><th>Test Operator Instructions</th><th>Expected Response</th><th>Observed Response</th><th>Fail Action</th></tr>
<tr><td>22.</td><td>@ISC ISI: Determine that Test started properly.</td><td>ISI Response:
--- ---
| Start Test Request: Success |
| The Test Started |
--- ---</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
<tr><td>23.</td><td>@ISC ISI: To View Event Message "[F14] [F14] [F6] [F7]"</td><td>ISI Response: " Acknowledge to start test! (Note: Ack between 45 and 50 secs of miss cycle)"</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
<tr><td>24.</td><td>@ISC ISI: Wait for IPS clock (seconds) to display between 45 and 50 seconds of the mission cycle.</td><td>ISI Response: Clock displays between 45 and 50 seconds.</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
<tr><td>25.</td><td>@IUC ISI: Acknowledge event to disable lightning standard file and start al-05 lightning script. "[F7] [F14] "</td><td>IUC Response:
"OPENED /usr/adas/ipsrun/data/script/al-xx"
.
.
.
"just opened /dev/tty14"</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
<tr><td>26.</td><td>Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time.

Date:1/12/98

Hr:20 Min:21 Sec:00</td><td>Date/time entered.</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
<tr><td>27.</td><td>Wait for Test to automatically end.</td><td>Expected Response @IUC:
"**** test_term() successfully ****"</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
<tr><td>28.</td><td>Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time.

Date:1/12/98

Hr:20 Min:32 Sec:00</td><td>Date/time entered.</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
<tr><td>29.</td><td>@ISC ISI: Output to file the OML: NLDN LDD Message. "[F7] [F8] [F8] AL-05 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'NLDN LDD Message'} [RETURN] {wait} [F14] [F14] [F14]"</td><td>The output file is in directory '/tmp'.</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
<tr><td>30.</td><td>@ISC ISI: Output to file the IML: AWOS LAD, long format. "[F7] [F8] [F7] AL-05 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'}</td><td>The output file is in directory '/tmp'.</td><td>[x] Pass [ ] Fail</td><td>Stop Test</td></tr>
</table>

TEST ID: **AL-05** TEST OPERATOR: Don Groot DATE: 1/12/98 TIME: 20:12 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN] [RETURN] {wait} [F14] [F14] [F14]"			
31.	@ISC ISI: Output to file the IML: ITWS1 LDD Message. **"[F7] [F8] [F7] AL-05 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS1 LDD Message'} [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
32.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
33.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for PC1.	Capture file opened properly and patch cable set for PC1.	**[x]** Pass **[ ]** Fail	Stop Test
34.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
35.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test
36.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.11. TEST AL-06

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.11.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[X]	[ ]	ADAS properly accepted and interpreted data from the NLDN data source at its specified data rate of 1200 baud, when this data continuously arrived at the maximum rate of 1100 lightning strikes per minute. LSS2-015, LSS2-022, LSS2-024, LSS3-002, LSS3-004, LSS3-005 CR01 (NOTE: The baud rate was also tested in the AL-01 tests)
c.	[X]	[ ]	At the maximum input rate specified in (a), ADAS detected all error conditions in the LDD input stream. LSS2-002 CR02
d.	[X]	[ ]	At the maximum input rate, ADAS captured and formed all valid LDD input messages. LSS2-002 CR03
e.	[P]	[ ]	At the maximum input rate, ADAS properly maintained performance data points reflecting the status/condition of the NLDN interface. LSS2-002 CR04 Note 1: Verification of CR04 can be found in these TCF step by step procedures. Note 2: Because the NLDN LU DP printout is still incorrect this criteria is only partially verified. The ASC screen reported these correctly. See PTR OTE-042
f.	[X]	[ ]	ADAS accepted 1100 data messages per minute from the NLDN. LSS2-015 CR05
g.	[ ]	[ ]	The ADAS interfaced functionally and physically with the NLDN at a rate of 216 bits, 667 times per second. ADAS transmitted LAD messages to AWOS at a rate of 152 bits per minute. LSS2-021, LSS2-024, LSS3-009, LSS3-010 CR06 (Note: This was not verified since the protocol analyzer data was not saved. This verification, however, was performed during the AL-01 tests.)
h.	[X]	[ ]	Properly generate LAD messages for AWOS. LSS3-005 CR07
i.	[X]	[ ]	AWOS received LAD messages from ADAS. LSS3-002 CR08

j. [X] [ ] ADAS disseminated the LAD to the correct AWOS within one minute. LSS2-020, LSS2-021 and LSS3-004 CR09

k. [X] [ ] AWOS/ASOS reported lightning when current LAD messages indicate that lightning is presently active. LSS3-005 CR10

l. [X] [ ] ADAS disseminated lightning data to WMSCR via METAR messages. LSS2-014 CR11 (NOTE: Since one of the IPS channels was out, 6 of the simulated AWOS did not report a METAR).

m. [X] [ ] ADAS did not include in the ADU and not transmit to ITWS, any indication of any Flash Message(s) when lightning was missing during a given second(s) of the five second interval. LSS2-014 CR12

All relevant OT&E formal test run data has been included into test files:

OT&E #1: al-06-1.cap: CR01 & CR03
al-06-1.itd: CR01, CR03, CR05, & CR07
TCF procedure steps (see next section) & printouts: CR04

OT&E #2: al-06-1.cap: CR11
al-06-1.evl: CR02
al-06-1.ips: CR08, CR09, CR10, & CR12
al-06-1.otis: CR08, CR09, & CR10

C.1.11.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-06.TCF".

TEST ID: **AL-06** TEST OPERATOR: Don Groot DATE: 2/5/98 TIME: 16:40 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Connect a patch cable from the ADAS NADIN II port to the IPS NADIN II port.	Verify that a patch cable connects the ADAS's & IPS's NADIN II ports.	**[x]** Pass **[ ]** Fail	Redo step
2.	@Patch Panel: Connect a patch cable from the IPS port to the NLDN Display port.	Verify that a patch cable connects the IPS and NLDN Display ports.	**[x]** Pass **[ ]** Fail	Redo step
3.	@Protocol Analyzer: Connect the protocol analyzer from the NLDN to the ADAS.	Verify that the protocol analyzer is connected and prepared to operate.	**[x]** Pass **[ ]** Fail	Redo step
4.	@NLDN: Clear the flash buffer. Note: This must be done periodically during the test when the flash buffer reaches its maximum capacity.	The flash buffer is empty.	**[x]** Pass **[ ]** Fail	Redo step
5.	@NLDN: Set mode to real time. Set status to running.	The NLDN display mode is real time running.	**[x]** Pass **[ ]** Fail	Redo step
6.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	**[x]** Pass **[ ]** Fail	Redo step
7.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	**[x]** Pass **[ ]** Fail	Stop Test
8.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running" OR "The ADAS application is shutdown"	**[x]** Pass **[ ]** Fail	Redo step
9.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	**[x]** Pass **[ ]** Fail	Stop Test
10.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	**[x]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-06** TEST OPERATOR: Don Groot DATE: 2/5/98 TIME: 16:40 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
11.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Enter both times simultaneously.}	IUC and AUC will display the updated date and time.	[x] Pass [ ] Fail	Stop Test
12.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login	[x] Pass [ ] Fail	Redo step
13.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	[x] Pass [ ] Fail	Redo step
14.	@ISC ISI: Reset the IPS test time offset. **"[F8][F11][SPACE][RETURN][F14]"**	The IPS test time is reset to 0	[x] Pass [ ] Fail	Redo step
15.	@AUC 'adas' prompt: enter **"cl 72"**	AUC Displays: Config 72 loaded	[x] Pass [ ] Fail	Redo step
16.	@ISC ISI: start test "AL-06". **"[F8] [F7] AL-06 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [SPACE] [RETURN]** {wait} [F14] [F14]"	ISI Response: "Starting Test..." then --- --- | Start Test Request: Success | | The Test Started | --- ---	[x] Pass [ ] Fail	Stop Test
17.	@IUC: wait for malloc (15000) to appear on the display	IUC Display Pong Messages	[x] Pass [ ] Fail	Stop Test
18.	@AUC 'adas' prompt: enter **"sa"** (NOTE: don't use "sa clean" since we want to leave some logs for printing later.)	Wait until the AUC Displays "Specialists may logon for Operational State".	[x] Pass [ ] Fail	Redo step
19.	Begin capturing data from the NLDN using the protocol analyzer.	Choose the downloading raw ASCII option on the Procomm menu.	[x] Pass [ ] Fail	Stop Test
20.	@IUC: wait for "S Pong 4: xxx bytes received" message to be displayed. @ IUC ISI: View Event Message **"[F6][F7]"**	ISI Response: "Acknowledge to start test!"	[x] Pass [ ] Fail	Stop Test
21.	At the acknowledge menu, hit **[F7]**.	The test begins transmitting lightning data.	[x] Pass [ ] Fail	Stop Test
22.	Record the start date and time: Date:2/5/98 Time 17:11:00	Date and Time entered.	[x] Pass [ ] Fail	Redo step
23.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	[x] Pass [ ] Fail	Redo step
24.	At minute 6, begin a tape archive. Since the tape	Tape archive started.	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	archive is so short, continue to do them over and over again for about 4 to 5 minutes. Record Time Began Archives: 17:16: Record Time Stopped Archives: 17:19:30			
25.	At minute 16 [11], begin printing a sizable event/error log. (NOTE: At this point I messed up the times and was off 5 minutes the rest of the way. The minute for this run is in "[mm]") Record Time 17:21:	Event/error log printed.	**[x]** Pass **[ ]** Fail	Stop Test
26.	At minute 26 [21] (see note for step 25), begin heavy paging through log data at the ADAS Specialists Console (ASC). Continue to page for 4 to 5 minutes. Record Time Began Paging: 17:31:30 Record Time Stopped Paging: 17:35:21	ASC: Paging through log data.	**[x]** Pass **[ ]** Fail	Stop Test
27.	At minute 37 [32] (see note for step 25): @ASC use EDIT WORKING ADAPT to set the NLDN to be OUT OF SERVICE. After NLDN is EDITED and set OUT OF SERVICE (ie. Receive "successful" at end of editing), this change needs to be INSTALLED. Record Time 17:42	Receive "successful" for both EDIT and INSTALL.	**[x]** Pass **[ ]** Fail	Stop Test
28.	At minute 39 [34] (see note for step 25): @ASC, select DATA POINT CMD. Then select DISPLAY DATAPOINTS - NLDN COMMUNICATIONS. Record that the NLDN Connection Status is CFG NOT. Connection Status is CFG NOT: Yes Record Time 17:44	Verify and record Connection Status. This will support evaluation criteria **CR04**.	**[x]** Pass **[ ]** Fail	Stop Test
29.	At minute 42 [37] (see note for step 25): @ASC, select DATA POINT CMD. Then select REPORT DATAPTS. (Note: Once NLDN comm is printed, print out can be killed) Record Time 17:47:48	Verify that the logical units have been printed. This will support evaluation criteria **CR04**. (Note: Since the printouts did not contain the correct values this step failed. See PTR OTE-042)	**[ ]** Pass **[x]** Fail	Stop Test
30.	@NLDN: Clear the NLDN flash buffer when it is full. Record Time 17:50:45	The flash buffer is empty.	**[x]** Pass **[ ]** Fail	Redo step

TEST ID: **AL-06** TEST OPERATOR: Don Groot DATE: 2/5/98 TIME: 16:40 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	Record # of flashes in buffer when cleared: 41515			
31.	At minute 55 [50] (see note for step 25): @ASC use EDIT WORKING ADAPT to set the NLDN to be IN SERVICE. After NLDN is EDITED and set IN SERVICE (ie. Receive "successful" at end of editing), this change needs to be INSTALLED. Record Time: 18:00	Receive "successful" for both EDIT and INSTALL.	**[x]** Pass **[ ]** Fail	Stop Test
32.	At minute 57 [52] (see note for step 25): @ASC, select DATA POINT CMD. Then select DISPLAY DATAPOINTS - NLDN COMMUNICATIONS. Record that the NLDN Connection Status is CFG ACTIVE. Connection Status is CFG ACTIVE: Yes Record Time: 18:02:21	Verify and record connection status. This will support evaluation criteria **CR04**.	**[x]** Pass **[ ]** Fail	Stop Test
33.	At minute 58 [53] (see note for step 25), disconnect the cable from the NLDN to the ADAS. This is best done right at back of NLDN controller. Therefore this will also test that serial buffer does not continue to send LDD to ADAS. Record Time 18:03:22	Verify that the cable is disconnected.	**[x]** Pass **[ ]** Fail	Stop Test
34.	At minute 60 [55] (see note for step 25): @ASC, select DATA POINT CMD. Then select DISPLAY DATAPOINTS - NLDN COMMUNICATIONS. Record that the NLDN Connection Status is CFG FAILED Connection Status is CFG FAILED: Yes Record Time 18:05:01	Verify and record connection status. This will support evaluation criteria **CR04**.	**[x]** Pass **[ ]** Fail	Stop Test
35.	At minute 65 [60] (see note for step 25): @ASC, select DATA POINT CMD. Then select REPORT DATAPTS. (Note: Once NLDN comm is printed, print out can be killed) Record Time___:___:___ Didn't do since already failed in step 29.	Verify that the logical units have been printed. This will support evaluation criteria **CR04**. (Note: See step 29)	**[ ]** Pass **[x]** Fail	Stop Test
36.	At minute 73 [68] (see note for step 25), reconnect the NLDN cable to the ADAS. Record Time 18:18	Verify that the cable is reconnected.	**[x]** Pass **[ ]** Fail	Stop Test
37.	At minute 75 [70] (see note for step 25): @ASC, select	Verify and record connection status. This	**[x]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-06** TEST OPERATOR: Don Groot DATE: 2/5/98 TIME: 16:40 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	DATA POINT CMD. Then select DISPLAY DATAPOINTS - NLDN COMMUNICATIONS. Record that the NLDN Connection Status is CFG ACTIVE. Connection Status is CFG ACTIVE: Yes Record Time 18:27:20	will support evaluation criteria **CR04**.	Note: See OT&E log book for 2/9/98 for rerun of this step to verify that it worked correctly.	
38.	At minute 80 [75] (see note for step 25): @ASC, select DATA POINT CMD. Then select REPORT DATAPTS. (Note: Once NLDN comm is printed, print out can be killed) Record Time___:___:___ Didn't do since already failed in step 29.	Verify that the logical units have been printed. This will support evaluation criteria **CR04**. (Note: See step 29)	[ ] Pass **[x]** Fail	Stop Test
39.	@ASC: Log out of ASC to allow MPS DPs to be recorded by the IPS.	ASC properly logged out.	**[x]** Pass [ ] Fail	Stop Test
40.	@NLDN: Clear the NLDN flash buffer when it is full. Record Time 18:30:31 Record # of flashes in buffer when cleared: 41515	The flash buffer is empty.	**[x]** Pass [ ] Fail	Redo step
41.	@NLDN: Clear the NLDN flash buffer when it is full. Record Time 19:11:09 Record # of flashes in buffer when cleared: 41515	The flash buffer is empty.	**[x]** Pass [ ] Fail	Redo step
42.	@NLDN: Clear the NLDN flash buffer when it is full. Record Time 19:51:52 Record # of flashes in buffer when cleared: 41515	The flash buffer is empty.	**[x]** Pass [ ] Fail	Redo step
43.	At minute 198, the test will terminate automatically.	@ISC: **** ICP_CTLsta.c test_term() successfully ****	**[x]** Pass [ ] Fail	Stop Test
44.	Record the end date and time: Date: 2/5/98 Time 20:29:09 Record # of flashes in buffer when cleared: 37927	Date and Time entered.	**[x]** Pass [ ] Fail	Redo step
45.	Subtract the end time from the Flash Start Time. Total Test Time: 3 hours 18 minutes Add the total number of NLDN flashes recorded above.	The flash rate of this test is determined.	**[x]** Pass [ ] Fail	Redo Step

TEST ID: **AL-06** TEST OPERATOR: Don Groot DATE: 2/5/98 TIME: 16:40 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	Total Number of Flashes: 203,987 Divide the number of flashes by the Total Test Time to obtain the flash rate for this test. Flash rate: 1030 per minute (Note: Some flashes are lost when clearing the NLDN display; some are lost because we have a 1 second gap every minute to minute and a 1/2. Therefore, we don't quite get the 1100 flashes per minute rate).			
46.	@ISC ISI: Output to file the OML: NLDN LDD Message. **"[F7] [F8] [F8] AL-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'NLDN LDD Message'} [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
47.	@ISC ISI: Output to file the IML: AWOS LAD, long format. **"[F7] [F8] [F7] AL-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
48.	@ISC ISI: Output to file the IML: DLP, long format. **"[F7] [F8] [F7] Al-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'DLP'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
49.	@ISC ISI: Output to file the IML: MPS Alarm/Alert, long format. **"[F7] [F8] [F7] Al-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'MPS Alarm/Alert'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
50.	@ISC ISI: Output to file the IML: ITWS1 LDD, long format. **"[F7] [F8] [F7] AL-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS1 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
51.	@ISC ISI: Output to file the IML: ITWS2 LDD, long format. **"[F7] [F8] [F7] AL-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS2 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
52.	@ISC ISI: Output to file the IML: ITWS3 LDD, long format. **"[F7] [F8] [F7] AL-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS3 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-06** TEST OPERATOR: Don Groot DATE: 2/5/98 TIME: 16:40 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
53.	@ISC ISI: Output to file the IML: ITWS4 LDD, long format. **"[F7] [F8] [F7] AL-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS4 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
54.	@ISC ISI: Output to file the IML: ITWS5 LDD, long format. **"[F7] [F8] [F7] AL-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS5 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
55.	@ISC ISI: Output to file the IML: ITWS6 LDD, long format. **"[F7] [F8] [F7] AL-06 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS6 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
56.	Setup to redirect ADAS SEP to PC1	Patch cables setup to redirect output from ADAS SEP to PC1	**[x]** Pass [ ] Fail	Stop Test
57.	Report SPECI/METAR Archive to PC1. Make sure to specify only the time this test was performed.	SPECI/METAR messages captured on PC1	**[x]** Pass [ ] Fail	Stop Test
58.	Report the AUC event/error logs to PC1. Make sure to specify only the time this test was performed.	Event/Error Log captured on PC1	**[x]** Pass [ ] Fail	Stop Test
59.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	**[x]** Pass [ ] Fail	Stop Test
60.	@ASC SI: Issue the command to Shutdown ADAS. **"[F7] [F8] [SPACE] [RETURN]"**	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test
61.	@ISC ISI: Issue the command to Shutdown IPS. **"[F8] [F10] [SPACE] [RETURN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.		
62.	@Patch Panel: verify that a patch cable re-directs the SMP output to the PSF-PC for data capture.	A cable patches the SMP port's top socket to the PSF-PC port's middle socket.	**[x]** Pass [ ] Fail	Stop Test
63.	@IUC enter: **"CTRL-D"**	The IUC will display "Console Login:"	**[x]** Pass [ ] Fail	Stop Test
64.	@AUC enter: **"CTRL-D"**	The AUC will display "Console Login:"	**[x]** Pass [ ] Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.12. TEST AL-07

This test was combined with Test AL-06.

C.1.13. TEST AL-08

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.13.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[X]	[ ]	All results were properly generated as described in Analysis Method 1., above. LSS2-007 and LSS2-012 CR01
c.	[X]	[ ]	All results were properly generated as described in Analysis Method 2., above. LSS2-007 and LSS2-012 CR02
d.	[X]	[ ]	All results were properly generated as described in Analysis Method 3., above. LSS2-007 and LSS2-013 CR03
e.	[X]	[ ]	All results were properly generated as described in Analysis Method 4., above. LSS3-003 CR04
f.	[X]	[ ]	All results were properly generated as described in Analysis Method 5., above. LSS3-003 CR05

All relevant OT&E formal test run data has been included into test files:

OT&E #1:	al-08-1.cap:	CR03 & PTR OTE-031
	al-08-1.itl:	CR01 & CR02
	al-08-1.dlp:	CR01, CR02, CR04 & CR05
OT&E #2:	al-06-1.cap:	Supports resolution of PTR OTE-031

C.1.13.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-08.TCF".

TEST ID: **AL-08** TEST OPERATOR: Don Groot DATE: 9/12/97 TIME: 12:30 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Connect a patch cable from the ADAS NADIN II port to the IPS NADIN II port.	Verify that a patch cable connects the ADAS's & IPS's NADIN II ports. [1-6A to 1-7A]	**[x]** Pass [ ] Fail	Stop Test
2.	@Patch Panel: Connect the patch cable from the IPS port to the NLDN Display port but switch the NLDN switch box to B. This will allow viewing of lightning on NLDN display but not have any LDDs go to ADAS (later in procedure we'll switch the box to A).	Verify that the patch cable from the IPS to NLDN Display ports is connected and NLDN switch box is set to B.	**[x]** Pass [ ] Fail	Stop Test
3.	@NLDN: Set mode to real time. Set status to running.	The NLDN display mode is real time running.	**[x]** Pass [ ] Fail	Stop Test
4.	@AUC: Change the position of the AWOSs and ASOSs to correlate to the location of lightning on the NLDN.	The temporary site adaptation data should reflect the new AWOS and ASOS latitudes and longitudes.	**[x]** Pass [ ] Fail	Stop Test
5.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	**[x]** Pass [ ] Fail	Stop Test
6.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	**[x]** Pass [ ] Fail	Stop Test
7.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running" OR "The ADAS application is shutdown"	**[x]** Pass [ ] Fail	Stop Test
8.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	**[x]** Pass [ ] Fail	Stop Test
9.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	**[x]** Pass [ ] Fail	Stop Test

TEST ID: **AL-08** TEST OPERATOR: Don Groot DATE: 9/12/97 TIME: 12:30 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
10.	@AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step}.	AUC will display the updated date and time.	[x] Pass [ ] Fail	Stop Test
11.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login	[x] Pass [ ] Fail	Stop Test
12.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	[x] Pass [ ] Fail	Stop Test
13.	@ISC ISI: Reset the IPS test time offset. **"[F8][F11][SPACE][RETURN][F14]"**	The IPS test time is reset to 0	[x] Pass [ ] Fail	Stop Test
14.	@AUC 'adas' prompt: enter **"cl 66"**	AUC Displays: Config 66 loaded	[x] Pass [ ] Fail	Stop Test
15.	@ISC ISI: start test "AL-08". **"[F8] [F7] AL-08 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [SPACE] [RETURN]** {wait} [F14] [F14]"	ISI Response: "Starting Test..." then --- --- 	Start Test Request: Success
The Test Started	 --- ---	[x] Pass [ ] Fail	Stop Test
16.	@IUC: wait for malloc (15000) to appear on the display.	IUC Display Pong Messages	[x] Pass [ ] Fail	Stop Test
17.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	[x] Pass [ ] Fail	Stop Test
18.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	[x] Pass [ ] Fail	Stop Test
19.	@NLDN: Clear the flash buffer.	The flash buffer is empty.	[x] Pass [ ] Fail	Stop Test
20.	Switch the NLDN switch box to A to have LDDs sent to ADAS.	Verify that the switch box is set to A.	[x] Pass [ ] Fail	Stop Test
21.	Record the start date and time: Date: 9/12/97 Time 13:21:00	Date and Time entered.	[x] Pass [ ] Fail	Stop Test
22.	Wait approximately 5 minutes, then interrupt the operational NLDN satellite link to ADAS by disconnecting the link INTO the NLDN controller box. Record time: 13:31:20	Satellite link interrupted.	[x] Pass [ ] Fail	Stop Test
23.	Wait 17 minutes to allow all 15 minute persistence to flush out and then reestablish the satellite link to	Satellite link reestablished.	[x] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	the NLDN. Record time: 14:06:03			
24.	At the NLDN display clear all the satellite diagnostics errors by selecting SPECIAL, ZERO, SATELLITE-ZERO.	Verify all satellite diagnostics are zeroed out.	[x] Pass [ ] Fail	Stop Test
25.	Wait 2 minutes, then alter the satellite dish position to cause a series of errors in the LDD message stream to ADAS. This is not an exact science. NOTE: This procedure requires communications between an individual up by the satellite dish and at the NLDN display to carefully and slowly adjust the dish so that satellite communications errors (EOP, BOP, CHECKSUM, etc.) occur but that the NLDN does not stop communicating completely. Record time: 14:16:20 (started moving, at 14:20:30 dish was in the optimum position to receive errors and still have NLDN comm remain up)	Satellite dish position altered to force errors in the LDD input stream.	[x] Pass [ ] Fail	Stop Test
26.	Once numerous (10 - 20) and multiple (EOP, BOP, CHECKSUM) satellite communications errors have occurred, reposition the satellite dish to send normal LDD messages to the ADAS. Record time: 14:31	Satellite dish altered to initial position for normal LDD messages.	[x] Pass [ ] Fail	Stop Test
27.	Record the number of communications errors from the NLDN display: Bad flash: ____ Length: ____ Packet BOT: ____ Framing: ____ Packet EOT: ____ Overrun: ____ Checksum: ____ Break Int: ____ Unknown Msg: ____ Other: ____ Buf Overflow: ____ Total: ____	Verify that the errors were recorded properly. (NOTE: This information was not recorded although there were numerous of Packet BOT, Packet EOT, Checksum and Unknown Msg.)	[x] Pass [ ] Fail	Stop Test
28.	Wait at least 2 minutes from last recorded time and then disconnect the ADAS from the AWOS and ASOS by putting a patch cable into the socket for the AWOS and ASOS. Record time: 14:41	The ADAS is disconnected from the AWOS and ASOS.	[x] Pass [ ] Fail	Stop Test
29.	@ASC, continue to monitor the AWOS and ASOS station configuration status. Go to [Display Datapoints] and then [AWOS Station]. Record the time when each	Verify recorded time for AWOS and ASOS.	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-08** TEST OPERATOR: Don Groot DATE: 9/12/97 TIME: 12:30 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	station goes to status CFG FAILED. Record time for AWOS: 14:42 Record time for ASOS: No ASOS available			
30.	Wait at least 17 minutes and then reconnect the ADAS to the AWOS and ASOS. This will allow for 15 minute persistence to flush out. Record time: 15:00:30	The ADAS is reconnected to the AWOS and ASOS.	**[x]** Pass [ ] Fail	Stop Test
31.	Wait 2 - 3 minutes for the AWOS and ASOS to resume CFG ACTIVE status and then terminate the test at the IPS ISC "**[Control Commands][Term Test]**".	@ISC: **** ICP_CTLsta.c test_term() successfully ****	**[x]** Pass [ ] Fail	Stop Test
32.	Record the end date and time: Date: 9/12/97 Time 15:14:06	Date and Time entered.	**[x]** Pass [ ] Fail	Stop Test
33.	@ISC ISI: Reset the IPS test time offset. "**[F8][F11][SPACE][RETURN][F14]**"	The IPS test time is reset to 0	**[x]** Pass [ ] Fail	Stop Test
34.	@Patch Panel: verify that a patch cable re-directs the ADAS ASC output to the PC1 for data capture.	A cable patches the ADAS ASC output socket to the PC1 socket.	**[x]** Pass [ ] Fail	Stop Test
35.	@ASC: Dump the ADAS Event and Error logs. This is performed by "**[Event/Error CMDS][Report Evnt/Err Log]**".	Event and Error logs are captured on PC1.	**[x]** Pass [ ] Fail	Stop Test
36.	@ISC ISI: Output to file the IML: AWOS LAD, long format. "**[F7] [F8] [F7] A1-08 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
37.	@ISC ISI: Output to file the IML: DLP, long format. "**[F7] [F8] [F7] A1-08 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'DLP'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
38.	@ISC ISI: Output to file the IML: WMSCR METAR, long format. "**[F7] [F8] [F7] A1-08 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'WMSCR METAR'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
39.	@ISC ISI: Output to file the IML: MPS Log, long format. "**[F7] [F8] [F7] A1-08 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'MPS log'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test

TEST ID: **AL-08** TEST OPERATOR: Don Groot DATE: 9/12/97 TIME: 12:30 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
40.	@ISC ISI: Output to file the IML: ITWS 1 LDD log, long format. **"[F7] [F8] [F7] Al-08 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS 1 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
41.	@ASC SI: Issue the command to Shutdown ADAS. **"[F7] [F8] [SPACE] [RETURN]"**	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
42.	@ISC ISI: Issue the command to Shutdown IPS. **"[F8] [F10] [SPACE] [RETURN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
43.	@Patch Panel: verify that a patch cable re-directs the IPS output to the PC1 for data capture.	A cable patches the IPS output socket to the PC1 socket.	**[x]** Pass **[ ]** Fail	Stop Test
44.	Dump the needed files to the /tmp directory by choosing 'file' on the IPS data log.	The files are moved to the /tmp directory.	**[x]** Pass **[ ]** Fail	Stop Test
45.	Send the log file to PC1 by typing lp [filename]. Procomm must be set up first to do this by choosing AL Test as the user setup.	The files are moved to PC1.	**[x]** Pass **[ ]** Fail	Stop Test
46.	@IUC enter: **"CTRL-D"**	The IUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test
47.	@AUC enter: **"CTRL-D"**	The AUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.14. TEST AL-09

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.14.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[X]	[ ]	ADAS processed lightning data acquired from outside the NAS. CR01 {LSS2-001}
c.	[X]	[ ]	ADAS supported data collection from NLDN. CR02 {LSS2-002}
d.	[X]	[ ]	ADAS processed data from NLDN. CR03 {LSS2-003}
e.	[X]	[ ]	ADAS stored lightning data. CR04 {LSS2-004}
f.	[X]	[ ]	ADAS maintained lightning data database.CR05 {LSS2-006}
g.	[X]	[ ]	ADAS collected data from the NLDN. CR06 {LSS2-007}
h.	[X]	[ ]	ADAS calculated proximity of lightning strike to the AWOS service location within the ACF. CR07 {LSS2-008}
i.	[X]	[ ]	ADAS generated a message indicating that lightning was active, when the lightning had occurred within the defined geographical areas surrounding the AWOS location.CR08 {LSS2-009}
j.	[X]	[ ]	ADAS maintained the status of lightning activity movement for the AWOS service location for a period of 15 minutes. CR09 {LSS2-010}
k.	[P]	[ ]	ADAS maintained the status of lightning activity for the AWOS service location for 15 minutes and identified the cessation of lightning activity. CR10 {LSS2-011} PTR OTE-055
l.	[X]	[ ]	ADAS disseminated current LAD to AWOS/ASOS and LDD to each ITWS once per minute (the ITWS part was not verified since run 6 used CONUS as ARTCC boundary). CR11 {LSS2-014}
m.	[X]	[ ]	ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes. CR12 {LSS2-016} [NOTE: ADAS

maintains these counts internally and therefore it can only be determined through code inspections. Code inspections were performed at DT&E and will not be performed during OT&E. However, ADAS LAD messages do maintain a 15 minute persistence for lightning activity for each Zone/Sector. Therefore a "PASS" indication for this and the next three criteria will indicate that this capability was verified.]

n. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred at radius 5nm and within of the Airport Reference Point (ARP). CR13 {LSS2-017} [See "NOTE" for requirement LSS2-016].

o. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for those strikes that occurred within a ring of radius greater than 5nm and less than or equal to 10nm of the Airport Reference Point (ARP). CR14 {LSS2-018} [See "NOTE" for requirement LSS2-016].

p. [X] [ ] ADAS maintained, for the AWOS, a count of lightning strikes for the last fifteen minutes, for each of the eight sectors within a ring of radius between 10nm to 30nm of the Airport Reference Point (ARP). The eight sectors correspond to the eight cardinal points. CR15 {LSS2-019} [See "NOTE" for requirement LSS2-016].

q. [X] [ ] ADAS used the existing data communication lines to the AWOS and ASOS to send LAD messages. CR16 {LSS2-021} This was verified by the use of the modem dial-up lines to AWOS and ASOS.

r. [X] [ ] The AWOS identified the thunderstorms in the surface observation by reporting remotely sensed lightning detection data (sent to the AWOS in the LAD message). CR17 {LSS3-001}

s. [X] [ ] The ASOS identified the thunderstorms in the surface observation by reporting remotely sensed lightning detection data (sent to the ASOS in the LAD message). CR18 {LSS3-001}

t. [X] [ ] The AWOS received lightning detection data (in the form of a LAD message) from the ADAS once per minute. CR19 {LSS3-002 & LSS3-004}

u. [X] [ ] The ASOS received lightning detection data (in the form of a LAD message) from the ADAS once per minute. CR20 {LSS3-002 & LSS3-004}

v. [X] [ ] The AWOS reported lightning/thunderstorm activity when current lightning detection date (in the form of LAD messages) indicated that lightning was presently active. CR21 {LSS3-005}

w. [X] [ ] The ASOS reported lightning/thunderstorm activity when current lightning detection date (in the form of LAD messages) indicated that lightning was presently active. CR22 {LSS3-005}

All relevant OT&E formal test run data has been included into test files:

OT&E #1:	al-09-6.cap:	CR01 - CR10 & CR12 - CR15
	al-09-6.dlp:	CR11, CR17 - CR22
	al-09-6.aai:	CR11
OT&E #2:	al-02c-1.cap:	CR08 (OTE-008, OTE-031), new PTR OTE-052
	al-06-1.cap:	CR11 (OTE-008, OTE-031)
	al-09-2.cap:	New PTR OTE-055 and supports OT&E #1 CRs
	al-09-3.cap:	New PTR OTE-057
	al-09-4.cap:	New PTR OTE-057

C.1.14.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-09.TCF".

TEST ID: **AL-09** TEST OPERATOR: Don Groot DATE: 2/17/98 TIME: 16:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[x] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS and the NLDN display ports. Also, verify that the A/B switch is set to A on top of NLDN controller box.	The NLDN display should indicate live flashes are being received.	[x] Pass [ ] Fail	Stop Test
3.	@Patch Panel: Verify that the AWOS/ASOS station is properly setup for communication with ADAS.	The AWOS/ASOS station is properly configured.	[x] Pass [ ] Fail	Stop Test
4.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	[x] Pass [ ] Fail	Stop Test
5.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	[x] Pass [ ] Fail	Stop Test
6.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running... Configuration xx is loaded." OR "The ADAS application is shutdown"	[x] Pass [ ] Fail	Stop Test
7.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	[x] Pass [ ] Fail	Stop Test
8.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	[x] Pass [ ] Fail	Stop Test
9.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter	IUC and AUC will display the updated date and	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-09** TEST OPERATOR: Don Groot DATE: 2/17/98 TIME: 16:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	"setdate MMDDhhmmYY" {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.}	time.		
10.	Determine (using the NLDN) the location in the CONUS of a lightning activity area (LAA).		**[x]** Pass [ ] Fail	Stop Test
11.	Once an LAA has been determined, use the NLDN system to obtain the latitudes and longitudes for the ADAS boundaries and the location of the ASOS or AWOS. To determine the latitudes and longitudes of the ARTCC boundary, add approximately 50nm to the boundaries to ensure that the 30nm range around the ASOS or AWOS (plus 20nm to ensure that the lightning has left the ASOS/AWOS) will "fit" within the confines of the ARTCC boundaries. Also, use the NLDN system to determine the location of the ASOS or AWOS. The method employed to do this is as follows: On the NLDN User's Screen (NUS), select the **[OTHER]** option. Then select the **[RANGE-FINDER]** option. Move the RED and GREEN crosses to the location where the AWOS or ASOS will be in the LAA. Record the latitude and longitude for the AWOS or ASOS as indicated in decimal format under the "LOCATIONS" heading on the NLDN screen. The same method can be used to determine the location of the four corners of the ARTCC geographic boundaries.	Record the latitudes and longitudes to be used to create the ARTCC geographic area. Record the latitudes and longitudes for the location of the ASOS or AWOS. ARTCC boundaries: N - 38 degrees S - 35 degrees W - -80 degrees E - -85 degrees AWOS/ASOS station: lat: 36.362 long: -82.170	**[x]** Pass [ ] Fail	Stop Test
12.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login	**[x]** Pass [ ] Fail	Stop Test
13.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	**[x]** Pass [ ] Fail	Stop Test
14.	@ISC ISI: start test "AL-09". **"[F8] [F7] AL-09 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	**[x]** Pass [ ] Fail	Stop Test
15.	@AUC 'adas' prompt: enter **"cl 66"**	AUC Displays: Config 66 loaded	**[x]** Pass [ ] Fail	Stop Test
16.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	**[x]** Pass [ ] Fail	Stop Test
17.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	**[x]** Pass [ ] Fail	Stop Test

TEST ID: **AL-09** TEST OPERATOR: Don Groot DATE: 2/17/98 TIME: 16:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
18.	Wait at IUC for termination of displaying successive multiple "S Pong 4: xxxx bytes received", (where xxxx is at max a four digit integer number). NOTE: If not careful this is easy to miss as it only happens the first mission cycle once communications with ADAS are established.	IUC Response: Successive, multiple "S Pong 4: xxxx bytes received" are displayed.	[x] Pass [ ] Fail	Stop Test
19.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	[x] Pass [ ] Fail	Stop Test
20.	Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:2/17/98 Hr: 16 Min: 00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
21.	@ASC enter the new latitudes and longitudes of the geographic boundaries of the ADAS. (The decimal lat-long from previous steps will have to be converted by multiplying the decimal part of the lat and long by 60. The result to be used is the minutes out to the 100th place holder.) **"[F8][F8][N][N][RETURN]{Enter N, S, E, W degrees and minutes}[RETURN][F14][F9][SPACEBAR][RETURN][[F14]"**	Verify that the lats and longs were correctly entered by displaying the ADAS boundary lat/longs. **"[F7][N][N][RETURN] {View the display} [F14][F14]"**	[x] Pass [ ] Fail	Stop Test
22.	@ASC enter the new latitudes and longitudes of the ASOS or AWOS and the K001 simulator (the simulated station's lat will have to differ from the live station by .05 minutes). (See the previous step concerning the lat-long minutes conversion.) **"[F8][F8][\/][\/][\/][\/][RETURN]{enter the AWOS/ASOS site id}[RETURN]{enter the new lat/long}[RETURN][F14][F9][SPACEBAR][RETURN][F14]"**	Verify that the lats and longs were correctly entered by displaying the AWOS/ASOS site lat/longs. **"[F7][\/][\/][\/][RETURN] {VIEW THE DISPLAY} [F14][F14]"**	[x] Pass [ ] Fail	Stop Test
23.	On the NLDN system use the zoom function such that the NLDN display contains the new ARTCC geographic boundaries.	Verify that the NLDN display region matches the new ARTCC geographic boundaries.	[x] Pass [ ] Fail	Stop Test
24.	Starting at the NLDN system's main menu, set the current region to be the coordinates of the map currently displayed. **"[Configure][Region][Set-current-map-region]"**	Verify that the region coordinates are the same as the currently displayed map coordinates.	[x] Pass [ ] Fail	Stop Test
25.	Starting at NLDN system's main menu, set the point of interest to be the location of the live AWOS/ASOS	Verify that the point of interest marker is on top of the red cross and that the lat/long for	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-09** TEST OPERATOR: Don Groot DATE: 2/17/98 TIME: 16:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	location. "**[Other][Range-finder] {place red cross @ AWOS/ASOS location} [f4]**"	the point of interest are the same as the live AWOS/ASOS.		
26.	Starting at NLDN system's main menu, set the range circles around the point of interest. "**[Graphics][Range-circles] {set Start to 5nm, Range to 30nm, and Interval to 5nm} [Replot Map]**"	Verify that the range circles are about the point of interest starting at 5nm and going out to 30nm in increments of 5nm.	**[x]** Pass **[ ]** Fail	Stop Test
27.	Observe the NLDN system to determine that lightning strikes have moved within 10nm of the new ADAS boundaries.	Verify that lightning strikes are within 10nm of the ADAS boundaries.	**[x]** Pass **[ ]** Fail	Stop Test
28.	Clear out the NLDN. At the NUS select the "**[FLASH-BUFFER] [CLEAR] [y]**".	Verify that the NLDN flash buffer has been cleared as indicated on the NUS where "CONTENTS" should equal 0.	**[x]** Pass **[ ]** Fail	Stop Test
29.	Observe the NLDN system to determine that lightning strikes have moved more than 30nm from the AWOS or ASOS for more than 15 minutes.	Verify that lightning strikes have moved away from the AWOS or ASOS for more than 15 minutes.	**[x]** Pass **[ ]** Fail	Stop Test
30.	Save the buffer of lightning strikes on the NUS by selecting **[FLASH-BUFFER] [SAVE] {enter a unique filename} [RETURN]**.	Verify that the file has been saved by selecting **[FLASH-BUFFER] [LOAD] {View the list to see if the file is present}**	**[x]** Pass **[ ]** Fail	Stop Test
31.	Terminate this test at the ISC. "**[F8][F8][SPACEBAR][RETURN][F14][F14]**"	"TERMINATING TEST..." "TERMINATE TEST: SUCCESSFUL"	**[x]** Pass **[ ]** Fail	Stop Test
32.	Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date: 2/17/98 Hr: 18 Min: 40	Date/time entered.	**[x]** Pass **[ ]** Fail	Stop Test
33.	@ISC ISI: Output to file the IML: AWOS LAD, long format. "**[F7] [F8] [F7] AL-09 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
34.	@ISC ISI: Output to file the IML: ITWS1 LDD, long format. "**[F7] [F8] [F7] AL-09 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS1 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]**"	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
35.	@ISC ISI: Output to file the IML: DLP, long format. "**[F7] [F8] [F7] Al-09 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'DLP'} [RETURN] [RETURN]**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	{wait} [F14] [F14] [F14]"			
36.	@ISC ISI: Output to file the IML: WMSCR METAR, long format. **"[F7] [F8] [F7] A1-09 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'WMSCR METAR'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass **[ ]** Fail	Stop Test
37.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
38.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for PC1.	Capture file opened properly and patch cable set for PC1.	**[x]** Pass **[ ]** Fail	Stop Test
39.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	**[x]** Pass **[ ]** Fail	Stop Test
40.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test
41.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	**[x]** Pass **[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.15. TEST AL-10

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.15.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[X]	[ ]	ADAS stored lightning data. CR01 {LSS2-004}

All relevant OT&E formal test run data has been included into test files:

OT&E #2: al-10-2.cap: CR01

C.1.15.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-10.TCF".

TEST ID: **AL-10** TEST OPERATOR: Don Groot DATE: 2/9/98 TIME: 21:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[x] Pass [ ] Fail	Stop Test
2.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	[x] Pass [ ] Fail	Stop Test
3.	@IUC enter **"grep reboot $1/*.log"**	If a reboot is necessary, then search will display "reboot" in one of these files. If reboot is necessary stop procedures, reboot IPS, and then start procedure over.	[x] Pass [ ] Fail	Stop Test
4.	@IUC enter: **"cp $1/icp_err.log $1/al-log/icp_err.al-10"** **"cp $1/irt_err.log $1/al-log/irt_err.al-10"** **"cp $1/isi_err.log $1/al-log/isi_err.al-10"** **"cp $1/iss_err.log $1/al-log/iss_err.al-10"**	All files should copy into $1/al-log directory. Ie. no error messages should appear.	[x] Pass [ ] Fail	Stop Test
5.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	[x] Pass [ ] Fail	Stop Test
6.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running... Configuration xx is loaded." OR "The ADAS application is shutdown"	[x] Pass [ ] Fail	Stop Test
7.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	[x] Pass [ ] Fail	Stop Test
8.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-10** TEST OPERATOR: Don Groot DATE: 2/9/98 TIME: 21:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
9.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.}	IUC and AUC will display the updated date and time.	**[x]** Pass **[ ]** Fail	Stop Test
10.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: IPS logon is now permitted.	**[x]** Pass **[ ]** Fail	Stop Test
11.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	**[x]** Pass **[ ]** Fail	Stop Test
12.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	**[x]** Pass **[ ]** Fail	Stop Test
13.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded	**[x]** Pass **[ ]** Fail	Stop Test
14.	@ISC ISI: start test "AL-10". **"[F8] [F7] AL-10 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	**[x]** Pass **[ ]** Fail	Stop Test
15.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	**[x]** Pass **[ ]** Fail	Stop Test
16.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	**[x]** Pass **[ ]** Fail	Stop Test
17.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	**[x]** Pass **[ ]** Fail	Stop Test
18.	@ISC ISI: Determine that Test started properly.	ISI Response: --- --- | Start Test Request: Success | | The Test Started | --- ---	**[x]** Pass **[ ]** Fail	Stop Test
19.	Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date:2/9/98 Hr:21 Min:03 Sec:00	Date/time entered.	**[x]** Pass **[ ]** Fail	Stop Test

TEST ID: **AL-10** TEST OPERATOR: Don Groot DATE: 2/9/98 TIME: 21:00 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
20.	Wait for Test to automatically end.	Expected Response @IUC: "**** test_term() successfully ****"	[x] Pass [ ] Fail	Stop Test
21.	Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date: 2/9/98 Hr:21 Min: 19 Sec:00	Date/time entered.	[x] Pass [ ] Fail	Stop Test
22.	@ISC ISI: Output to file the IML: WMSCR METAR, long format. **"[F7] [F8] [F7] AL-10 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'WMSCR METAR'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test
23.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for ADAS LOG to PC1.	Capture file opened properly and patch cable set for PC1.	[x] Pass [ ] Fail	Stop Test
24.	@ASC ISI: Output to printer the SPECI Archive Report. **"Archive Cmds,[F11]; Report Archive Data,[F12]; Set dates according to test start time above & hit [RETURN] until exiting screen; [F14]; [F14]"**	The data is sent to PC1 capture file.	[x] Pass [ ] Fail	Stop Test
25.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	[x] Pass [ ] Fail	Stop Test
26.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for PC1.	Capture file opened properly and patch cable set for PC1.	[x] Pass [ ] Fail	Stop Test
27.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	[x] Pass [ ] Fail	Stop Test
28.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	[x] Pass [ ] Fail	Stop Test
29.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	[x] Pass [ ] Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.1.16. TEST AL-11

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.1.16.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully.
b.	[X]	[ ]	ADAS processed lightning data acquired from outside the NAS. CR01 {LSS2-001}
c.	[X]	[ ]	ADAS processed data from NLDN. CR02 {LSS2-003}

All relevant OT&E formal test run data has been included into test files:

OT&E #1: al-11-1.cap: CR01 and CR02
OT&E #2: al-11-1.cap and flashes.doc: Supports OT&E #1 CRs

C.1.16.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "AL-11.TCF".

TEST ID: **AL-11** TEST OPERATOR: Don Groot DATE: 1/13/98 TIME: 13:38 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	**[x]** Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS and the NLDN display ports.	Within 15 seconds the NLDN display should indicate "communications link down".	**[x]** Pass [ ] Fail	Stop Test
3.	On NLDN system clear flash buffer. Go to [Flash-buffer] [Clear] [Y].	Main NLDN display should indicate no flashes in the flash buffer.	**[x]** Pass [ ] Fail	Stop Test
4.	On NLDN system set mode and status. Go to [Animate]. Set mode to "Real-time" and status to "Running".	Main NLDN display should indicate mode as Real-time.	**[x]** Pass [ ] Fail	Stop Test
5.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The ALDARS prompt should appear on the IUC.	**[x]** Pass [ ] Fail	Stop Test
6.	@IUC enter **"grep reboot $1/*.log"**	If a reboot is necessary, then search will display "reboot" in one of these files. If reboot is necessary stop procedures, reboot IPS, and then start procedure over.	**[x]** Pass [ ] Fail	Stop Test
7.	@IUC enter: **"cp $1/icp_err.log $1/al-log/icp_err.al-11"** **"cp $1/irt_err.log $1/al-log/irt_err.al-11"** **"cp $1/isi_err.log $1/al-log/isi_err.al-11"** **"cp $1/iss_err.log $1/al-log/iss_err.al-11"**	All files should copy into $1/al-log directory. Ie. no error messages should appear.	**[x]** Pass [ ] Fail	Stop Test
8.	@IUC enter **"stop_ips"**	If the IPS is already shutdown the prompt will return immediately. If the IPS is not shutdown the following messages appear: "Emergency Shutdown in Progress" "The IPS Startup Shutdown process terminate"	**[x]** Pass [ ] Fail	Stop Test
9.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC. On the AUC one of the following messages will appear: "The ADAS application is running... Configuration xx is loaded." OR	**[x]** Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		"The ADAS application is shutdown"		
10.	If the previous step's response indicated that ADAS was running then -> @ASC enter **"stop_adas"**	"ADAS system is DOWN"	**[x]** Pass [ ] Fail	Stop Test
11.	@IUC enter **"setdate"**	IUC will display the date and time in the 10 digit format MMDDhhmmYY.	**[x]** Pass [ ] Fail	Stop Test
12.	@IUC enter **"setdate MMDDhhmmYY"** and @AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY should be obtained from the 10 digit output by IPS @IUC in the previous step. Set the date and time to the same minute. Use of GMT from NLDN system is suggested if monitoring flashes on NLDN display. Enter both times simultaneously.}	IUC and AUC will display the updated date and time.	**[x]** Pass [ ] Fail	Stop Test
13.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: IPS logon is now permitted	**[x]** Pass [ ] Fail	Stop Test
14.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts	**[x]** Pass [ ] Fail	Stop Test
15.	@ISC ISI: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**	The IPS test time offset is reset to 0.	**[x]** Pass [ ] Fail	Stop Test
16.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded	**[x]** Pass [ ] Fail	Stop Test
17.	@ISC ISI: start test "AL-11". **"[F8] [F7] AL-11 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] {toggle Retry on I/O Disconnect to "Yes"} [RETURN] [RETURN]"**	ISI Response: "Starting Test..."	**[x]** Pass [ ] Fail	Stop Test
18.	@IUC wait for "Successfully malloc (15000)" to appear	IUC Displays: "Successfully malloc (15000)"	**[x]** Pass [ ] Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Operational State".	**[x]** Pass [ ] Fail	Stop Test
20.	Wait at IUC for termination of displaying successive multiple "S Pong 4: xxxx bytes received", (where xxxx is at max a four digit integer number). NOTE: If not careful this is easy to miss as it only happens the first mission cycle once communications with ADAS are established.	IUC Response: Successive, multiple "S Pong 4: xxxx bytes received" are displayed.	**[x]** Pass [ ] Fail	Stop Test
21.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	**[x]** Pass [ ] Fail	Stop Test

TEST ID: **AL-11** TEST OPERATOR: Don Groot DATE: 1/13/98 TIME: 13:38 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
22.	@ISC ISI: Determine that Test started properly.	ISI Response: --- --- | Start Test Request: Success | | The Test Started | --- ---	[x] Pass [ ] Fail	Stop Test
23.	@ISC ISI: To View Event Message **"[F14] [F14] [F6] [F7]"**	ISI Response: " Acknowledge to start test! (Note: Ack between 45 and 50 secs of miss cycle)"	[x] Pass [ ] Fail	Stop Test
24.	@ISC ISI: Wait for IPS clock (seconds) to display between 45 and 50 seconds of the mission cycle.	ISI Response: Clock displays between 45 and 50 seconds.	[x] Pass [ ] Fail	Stop Test
25.	@IUC ISI: Acknowledge event to disable lightning standard file and start al-11 lightning script. "**[F7] [F14]** "	IUC Response: "OPENED /usr/adas/ipsrun/data/script/al-xx" . . . "just opened /dev/tty14"	[x] Pass [ ] Fail	Stop Test
26.	Record the date/time of test commencement below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date: 1/13/98 Hr:13 Min: 46	Date/time entered.	[x] Pass [ ] Fail	Stop Test
27.	Wait for Test to automatically end.	Expected Response @IUC: "**** test_term() successfully ****"	[x] Pass [ ] Fail	Stop Test
28.	Record the date/time of test end below. Use time depicted on the ISI screen clock display, and the current date based on zulu time. Date: 1/13/98 Hr: 14 Min: 15	Date/time entered.	[x] Pass [ ] Fail	Stop Test
29.	@ISC ISI: Output to file the OML: NLDN LDD Message. **"[F7] [F8] [F8] AL-11 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'NLDN LDD Message'} [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test
30.	@ISC ISI: Output to file the IML: AWOS LAD, long format. **"[F7] [F8] [F7] AL-11 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'AWOS LAD'}**	The output file is in directory '/tmp'.	[x] Pass [ ] Fail	Stop Test

TEST ID: **AL-11**   TEST OPERATOR: Don Groot   DATE: 1/13/98   TIME: 13:38   TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN] [RETURN] {wait} [F14] [F14] [F14]"			
31.	@ISC ISI: Output to file the IML: ITWS1 LDD, long format. **"[F7] [F8] [F7] AL-11 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS1 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
32.	@ISC ISI: Output to file the IML: ITWS2 LDD, long format. **"[F7] [F8] [F7] AL-11 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS2 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
33.	@ISC ISI: Output to file the IML: ITWS3 LDD, long format. **"[F7] [F8] [F7] AL-11 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS3 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
34.	@ISC ISI: Output to file the IML: ITWS4 LDD, long format. **"[F7] [F8] [F7] AL-11 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS4 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
35.	@ISC ISI: Output to file the IML: ITWS5 LDD, long format. **"[F7] [F8] [F7] AL-11 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS5 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
36.	@ISC ISI: Output to file the IML: ITWS6 LDD, long format. **"[F7] [F8] [F7] AL-11 [RETURN] [RETURN] {toggle to 'file'} [RETURN] {select 'ITWS6 LDD'} [RETURN] [RETURN] {wait} [F14] [F14] [F14]"**	The output file is in directory '/tmp'.	**[x]** Pass [ ] Fail	Stop Test
37.	@AUC: Issue the command to Shutdown ADAS. **"stop_adas"**	The AUC indicates shutdown. The ASC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test
38.	Go to PC1 and open up capture file for down loading from IPS. Set patch cable up for PC1.	Capture file opened properly and patch cable set for PC1.	**[x]** Pass [ ] Fail	Stop Test
39.	@IUC: Issue the command to Shutdown IPS. **"stop_ips"**	The IUC indicates shutdown. The ISC displays a 'login' prompt.	**[x]** Pass [ ] Fail	Stop Test
40.	@IUC enter: **"exit"**	The IUC will display "Console Login:"	**[x]** Pass [ ] Fail	Stop Test
41.	@AUC enter: **"exit"**	The AUC will display "Console Login:"	**[x]** Pass [ ] Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.2. CATEGORY DE - Degraded Operation Tests

C.2.1. TEST DE-01 - Recoverable I/O Init. Error (AWOS)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.1.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-01.)
b.	[XX]	[ ]	The ADAS Event Log must show that ADAS detected the off-line AWOS station CR1 and continued to the Operational State - Reduce Mode as indicated by the SYS_MODE datapoint (LU 0x20 DP 0x02) CR3.
c.	[XX]	[ ]	After communications was re-established, the AWOS station must be reported as 'Link Status: up' CR2.
d. as	[XX]	[ ]	The transition from Reduce to Full Mode must have occurred indicated by the third request of the SYS_MODE datapoint (LU 0x20 DP 0x02) CR4.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into test DE-01's Test Conduct Form (TCF) file, "DE-01.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 18:46:12
EVENT SEQ. NUMBER: 54     EVENT TYPE: 5       CSC ID: 3.02
Status of the AWOS connection has changed.

  AWOS station id: K001  controller: 1
  channel: 1
  Link Status: link down   Event: link down                     CR1

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 18:49:17
EVENT SEQ. NUMBER: 269     EVENT TYPE: 5       CSC ID: 3.02
Status of the AWOS connection has changed.
```

AWOS station id: K001 controller: 1
channel: 1
Link Status: up Event: link reset

CR2

INPUT MESSAGE #: 1
RECEIVE TIME (ADAS): 08/19/97 18:48:09
++

13	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
15	DATE:	08/19/97	TIME:	18:48:08
22	DATAPOINT ID:	0x02	CONDITION STATUS:	0x42
24	PARAMETER VALUE:	(001) Decimal		

INPUT MESSAGE #: 21
RECEIVE TIME (ADAS): 08/19/97 18:48:11
++

2883	RMS ID:	0x01	LOGICAL UNIT ID:	0x41
2885	DATE:	08/19/97	TIME:	18:48:08
2887	DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
2889	PARAMETER VALUE:	(001) Decimal		

INPUT MESSAGE #: 158
RECEIVE TIME (ADAS): 08/19/97 18:49:16
++

21378	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
21380	DATE:	08/19/97	TIME:	18:49:16
21382	DATAPOINT ID:	0x02	CONDITION STATUS:	0x42
21384	PARAMETER VALUE:	(001) Decimal		

CR3

INPUT MESSAGE #: 159
RECEIVE TIME (ADAS): 08/19/97 18:51:01
++

21398	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
21400	DATE:	08/19/97	TIME:	18:51:00
21402	DATAPOINT ID:	0x02	CONDITION STATUS:	0x40
21404	PARAMETER VALUE:	(000) Decimal		

CR4

C.2.1.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-01.TCF".

TEST # **DE-01**   TESTED BY: _____ Jock K. Stratton _____   DATE: 19/AUG/97   TIME: 18:43   TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	A patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Stop Test
3.	@PC: Start data capture. '**cap_itd DE-01**'	Procomm starts with the log file open.	[X] Pass [ ] Fail	Stop Test
4.	@IUC 'aldars' prompt: enter '**si**'	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter '**cl 51**'	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': enter '**isi**', then '**test12**'	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
7.	@ISC: start test "DE-01" w/ RETRY set to YES. **"[F8] [F7] DE-01 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to Operational State..	[X] Pass [ ] Fail	Stop Test
9.	Wait prompted by the IPS, login, report event type 5, logout, then ack the ISI event. @ISC: **"{wait} <2:[F14]> [F6] wait [F7]"** @ASC 'login': **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 5 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays a 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the test terminates, shutdown ADAS. @ISC: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI the default specialist's screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-01 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>"**	The message log is output to a file. The main specialist's screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	@Patch Panel: Move patch cable to re-direct the IPS LOG output to the PSF-PC for data capture.	The cable patches the SMP port's top socket to the PSF-PC port's socket.	[X] Pass [ ] Fail	Stop Test

TEST # **DE-01** TESTED BY: _____ Jock K. Stratton _____ DATE: 19/AUG/97 TIME: 18:43 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
14.	After data is captured, close ProComm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm plus closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.2. TEST DE-02 - Recoverable I/O Init. Error (MPS)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.2.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-02.)
b.	[XX]	[ ]	The ADAS Event Log must show that ADAS detected the off-line MPS simulator CR1 and continued to the Operational State - Reduce Mode as indicated by the SYS_MODE datapoint in the ASC Display RMS Master/Overall Datapoint screen CR2.
c.	[XX]	[ ]	The MPS simulator was reported as active when communication was enabled CR3.
d. as	[XX]	[ ]	The transition from Reduce to Full Mode must have occurred indicated by the SYS_MODE datapoint (LU 20 DP 02) CR4.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-02's Test Conduct Form (TCF) file, "DE-02.TCF".

```
...........................................................................
..
.  08-19-97   19:03:59  . Events:      0 . Responses:     0 .   DATAPOINT CMDS
.
...........................................................................
..
                       DISPLAY RMS MASTER/OVERALL LU DATAPOINTS
                                              ALERT    ALARM
   DATAPOINT NAME        ID    VALUE        CURR PAST CURR PAST   LAST RESET

  SYSTEM STATE:             01 OPERATIONAL                            08-19-97
19:02:15
  OPERATIONAL MODE:        02 REDUCED   CR2                 *       08-19-97
19:02:15
  INITIALIZATION MODE:    03 COLD                                  08-19-97
19:02:15
```

RMS/MAINT RESET: 04 None 08-19-97
19:02:15
SPECIALIST LOGON: 05 REMOTE/LOG OFF 08-19-97
19:02:15

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	-1	YES

PRESS UP/DOWN ARROW KEYS TO POSITION AND TO DISPLAY THRESHOLDS.

SCROLL UP	SCROLL DOWN						PREVIOUS EXIT SCREEN
F7	F8	F9	F10	F11	F12	F13	F14

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 19:01:22
EVENT SEQ. NUMBER: 43 EVENT TYPE: 7 CSC ID: 6.01
Status of the MPS connection has changed.

comm status: enabled-failed CR1

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 19:04:29
EVENT SEQ. NUMBER: 258 EVENT TYPE: 7 CSC ID: 6.01
Status of the MPS connection has changed.

comm status: enabled-active CR3

INPUT MESSAGE #: 3
RECEIVE TIME (ADAS): 08/19/97 19:05:09
++

823	RMS ID:	0x01	LOGICAL UNIT ID:	0x23
825	DATE:	08/19/97	TIME:	19:05:07
827	DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
829	PARAMETER VALUE:	(002) Decimal		

CR3

INPUT MESSAGE #: 158
RECEIVE TIME (ADAS): 08/19/97 19:05:25
++

21378	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
21380	DATE:	08/19/97	TIME:	19:05:20
21382	DATAPOINT ID:	0x02	CONDITION STATUS:	0x40
21384	PARAMETER VALUE:	(000) Decimal		

CR4

C.2.2.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-02.TCF".

TEST # **DE-02** TESTED BY: ____ Jock K. Stratton ____ DATE: _19/AUG/97 TIME: _18:57_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	**[X]** Pass **[ ]** Fail	Connect Patch Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	**[X]** Pass **[ ]** Fail	Connect Patch Cable
3.	Start data capture. @PC DOS Prompt enter: **'cap_itd DE-02'**	Procomm starts with the log file open.	**[X]** Pass **[ ]** Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	**[X]** Pass **[ ]** Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	**[X]** Pass **[ ]** Fail	Stop Test
6.	@**ISC** 'login': enter **'isi'**, then **'test12"**	IPS SI (ISI) starts.	**[X]** Pass **[ ]** Fail	Stop Test
7.	@ISC: start test "DE-02" w/ RETRY set to YES. **"[F8] [F7] DE-02 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc (15000)	**[X]** Pass **[ ]** Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the Operational State.	**[X]** Pass **[ ]** Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS. @ISC: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN]"**	The Specialist Interface Default screen will be displayed.	**[X]** Pass **[ ]** Fail	Stop Test
10.	Display RMS Master Overall Datapoint values. @ASC: **"[F10] [F7] R [RTN] [F2] <3:[F14]> [SP] [RTN]"**	The SI displays the datapoints, the screen print is captured by the PSF PC.	**[X]** Pass **[ ]** Fail	Stop Test
11.	@ASC Logout of ADAS: **"<3:[F14]> [SP] [RTN]"**	The UNIX login prompt is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
12.	@ISC: Acknowledge the prompt. **"[F7]"**	The Event Window disappears.	**[X]** Pass **[ ]** Fail	Stop Test
13.	When prompted at the ISC with an IPS event, Login to ADAS, request an event log report for event type 7, logout, then acknowledge then event. @ISC: **"[F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11]**	The Specialist Interface Default screen will be displayed.	**[X]** Pass **[ ]** Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	<7:[RTN]> 7 [RTN] {wait} <3:[F14]> [SP] [RTN]" @ISC: **"[F7]"**			
14.	When the IPS Test Terminates, Shutdown ADAS. @AUC 'adas' prompt: enter "**stop_adas**"	ADAS requests confirmation of command. The AUC will indicate that a graceful shutdown was requested, SI shuts-down, the ASC displays a 'login' prompt, the AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
15.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-02 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
16.	@Patch Panel: verify that a patch cable re-directs the IPS SMP output to the PSF-PC for data capture.	A cable patches the SMP port's top socket to the PSF-PC port's top socket.	[X] Pass [ ] Fail	Stop Test
17.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
18.	After the data is captured, close Procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.3. TEST DE-03 - Recoverable I/O Init. Error (DLP)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.3.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-03.)
b.	[XX]	[ ]	The ADAS Event Log must show that ADAS detected the off-line DLP simulator CR1 and continued to the Operational State - Reduce Mode as indicated by the SYS_MODE datapoint (LU 20 DP 02) in the Datapoint request CR2.
c.	[XX]	[ ]	After communication was enabled, the DLP simulator must be reported as active CR3.
d.	[XX]	[ ]	The transition from Reduce to Full Mode must have occurred as indicated by the third request of the SYS_MODE datapoint CR4.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-03's Test Conduct Form (TCF) file, "DE-03.TCF".

```
EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-19-97 19:16:56
EVENT SEQ. NUMBER: 43     EVENT TYPE: 1       CSC ID: 4.05
Status of the DLP connection has changed.

  comm status: enabled-failed                                      CR1

EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-19-97 19:19:21
EVENT SEQ. NUMBER: 258     EVENT TYPE: 1       CSC ID: 4.05
Status of the DLP connection has changed.

  comm status: enabled-active                                      CR3

INPUT MESSAGE #:            1
  RECEIVE TIME (ADAS):      08/19/97 19:18:09
+++++++++++++++++++++++++++++++++++++++
13   RMS ID:                  0x01          LOGICAL UNIT ID:        0x20
```

15	DATE:	08/19/97	TIME:	19:18:08	
22	DATAPOINT ID:	0x02	CONDITION STATUS:	0x42	
24	PARAMETER VALUE:	(001) Decimal			CR2

INPUT MESSAGE #: 9
RECEIVE TIME (ADAS): 08/19/97 19:18:10
++

1203	RMS ID:	0x01	LOGICAL UNIT ID:	0x29	
1205	DATE:	08/19/97	TIME:	19:18:08	
1207	DATAPOINT ID:	0x01	CONDITION STATUS:	0x42	
1209	PARAMETER VALUE:	(001) Decimal			CR1

INPUT MESSAGE #: 159
RECEIVE TIME (ADAS): 08/19/97 19:20:16
++

21398	RMS ID:	0x01	LOGICAL UNIT ID:	0x20	
21400	DATE:	08/19/97	TIME:	19:20:16	
21402	DATAPOINT ID:	0x02	CONDITION STATUS:	0x40	
21404	PARAMETER VALUE:	(000) Decimal			CR4

C.2.3.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-03.TCF".

TEST # **DE-03** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _19:14_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	A patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the ADAS's SEP port to a PC port..	[X] Pass [ ] Fail	Redo Step
3.	@PC: Start data capture. **'cap_itd DE-03'**	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@**ISC** 'login': enter **'isi'**, then **'test12"**	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
7.	@ISC: start test "DE-03" w/ RETRY set to YES. **"[F8] [F7] DE-03 <13:[RTN]> [SP] <2:[RTN]>"**	ISC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login, report event type 1 entries, logout, then acknowledge the prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 1 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS Test Terminates, Shutdown ADAS. @AUC 'adas' prompt: **"stop_adas [RTN]"**	The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-03 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	@Patch Panel: verify that a patch cable re-directs the IPS SMP output to the PSF-PC for data capture.	A cable patches the SMP port's top socket to the PSF-PC port's top socket.	[X] Pass [ ] Fail	Connect Patch Cable

TEST # **DE-03** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _19:14_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
14.	After the data is captured, close Procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.4. TEST DE-04 - Recoverable I/O Init. Error (WARP)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.4.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-04.)
b.	[XX]	[ ]	The ADAS Event Log must show that ADAS detected the off-line WARP simulator CR1 and continued to the Operational State - Reduce Mode as indicated by the SYS_MODE datapoint (LU 20 DP 02) in the Datapoint request CR2.
c.	[XX]	[ ]	After communication was enabled, the WARP simulator must be reported as active CR3.
d.	[XX]	[ ]	The transition from Reduce to Full Mode must have occurred as indicated by the third request of the SYS_MODE datapoint (LU 20 DP 02) CR4.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-04's Test Conduct Form (TCF) file, "DE-04.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 19:27:42
EVENT SEQ. NUMBER: 42    EVENT TYPE: 2       CSC ID: 4.01
Status of the WARP connection has changed.

  comm status: enabled-failed                                   CR1

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 19:30:34
EVENT SEQ. NUMBER: 251    EVENT TYPE: 2       CSC ID: 4.01
Status of the WARP connection has changed.

  comm status: enabled-active                                   CR3

INPUT MESSAGE #:         1
  RECEIVE TIME (ADAS):   08/19/97 19:29:09
++++++++++++++++++++++++++++++++++++++
```

13	RMS ID:	0x01	LOGICAL UNIT ID:	0x20	
15	DATE:	08/19/97	TIME:	19:29:08	
22	DATAPOINT ID:	0x02	CONDITION STATUS:	0x42	
24	PARAMETER VALUE:	(001) Decimal			CR2

INPUT MESSAGE #: 159
RECEIVE TIME (ADAS): 08/19/97 19:31:17
++

21398	RMS ID:	0x01	LOGICAL UNIT ID:	0x20	
21400	DATE:	08/19/97	TIME:	19:31:16	
21402	DATAPOINT ID:	0x02	CONDITION STATUS:	0x40	
21404	PARAMETER VALUE:	(000) Decimal			CR4

C.2.4.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-04.TCF".

TEST # **DE-04** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _19:25_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify ADAS/IPS NADIN connection.	The ADAS & IPS NADIN II ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Patch ADAS SEP to PSF PC	A patch cable connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter '**cap_itd DE-04**'	Procomm starts with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 51**"	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@**ISC** 'login': enter '**isi**', then '**test12**"	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "DE-04" w/ RETRY set to "YES". @ISC: **"[F8] [F7] DE-04 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter '**sa clean**'	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by the IPS, login, report event type 2 entries, logout, then acknowledge the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 2 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the Event Log Report. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-04 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	@Patch Panel: verify that a patch cable re-directs the IPS SMP output to the PSF-PC for data capture.	A cable patches the SMP port's top socket to the PSF-PC port's top socket.	[X] Pass [ ] Fail	Stop Test

TEST # **DE-04** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _19:25_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	Issue the Shutdown IPS command. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
14.	Wait until the data is captured then close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.5. TEST DE-05 - Recoverable I/O Init. Error (WMSCR)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.5.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-05.)
b.	[XX]	[ ]	The ADAS Event Log must show that ADAS detected the off-line WMSCR Simulator CR1 and continued to the Operational State - Reduce Mode as indicated by the SYS_MODE datapoint in the Datapoint request CR2*.
b.	[XX]	[ ]	Three minutes later (approximately) the WMSCR simulator must be reported as active CR3.
d.	[XX]	[ ]	The transition from Reduce to Full Mode must have occurred as indicated by the third request of the SYS_MODE datapoint CR4*.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-05's Test Conduct Form (TCF) file, "DE-05.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 19:39:30
EVENT SEQ. NUMBER: 44     EVENT TYPE: 12      CSC ID: 5.01
Status of the WMSCR connection has changed.

  comm status: enabled-failed                                  CR1

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 19:42:22
EVENT SEQ. NUMBER: 251    EVENT TYPE: 12      CSC ID: 5.01
Status of the WMSCR connection has changed.

  comm status: enabled-active                                  CR3

INPUT MESSAGE #:          1
  RECEIVE TIME (ADAS):    08/19/97 19:41:10
++++++++++++++++++++++++++++++++++++++++
```

13	RMS ID:	0x01	LOGICAL UNIT ID:	0x20	
15	DATE:	08/19/97	TIME:	19:41:09	
22	DATAPOINT ID:	0x02	CONDITION STATUS:	0x42	
24	PARAMETER VALUE:	(001) Decimal			CR2

INPUT MESSAGE #: 159
RECEIVE TIME (ADAS): 08/19/97 19:43:16
+++++++++++++++++++++++++++++++++++++++

21398	RMS ID:	0x01	LOGICAL UNIT ID:	0x20	
21400	DATE:	08/19/97	TIME:	19:43:16	
21402	DATAPOINT ID:	0x02	CONDITION STATUS:	0x40	
21404	PARAMETER VALUE:	(000) Decimal			CR4

C.2.5.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-05.TCF".

TEST # **DE-05** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _19:36_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Connect the SEP to a PSF PC.	A patch cable connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS Prompt: Enter "**cap_itd DE-05**"	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 51**"	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **enter 'isi'**, then 'test12'	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "DE-05" w/ RETRY set to YES. @ISC: "**[F8] [F7] DE-05 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter "**sa clean**"	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by the IPS, login, report event type 12 entries, logout, then acknowledge the IPS prompt. @ISI: "**{wait} <2:[F14]> [F6] {wait} [F7]**" @ASC: "**si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 12 [RTN] {wait} <3:[F14]> [SP] [RTN]**" @ISC: "**[F7]**"	The event is displayed at the ISI. The PC captures the report output.. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: "**{wait} [F7] <2:[F14]>**" @AUC: "**stop_adas [RTN]**"	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS DATA RESPONSE to file. @ISC: "**[F7] [F8] [F7] DE-05 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	@Patch Panel: verify that a patch cable re-directs the IPS SMP output to the PSF-PC for data capture.	A cable patches the SMP port's top socket to the PSF-PC port's top socket.	[X] Pass [ ] Fail	Connect Patch Cable

TEST # **DE-05** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _19:36_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
14.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.6. TEST DE-06 - Recoverable I/O Init. Error (CTS)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.6.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-06.)
b.	[XX]	[ ]	The ADAS Event Log must show that ADAS detected the off-line CTS simulator CR1 and continued to the Operational State - Reduce Mode as indicated by the SYS_MODE datapoint in the datapoint request CR2.
c.	[XX]	[ ]	Three minutes later (approximately) the CTS simulator must be reported as active CR3.
d.	[XX]	[ ]	The transition from Reduce to Full Mode must have occurred as indicated by the third request of the SYS_MODE datapoint CR4.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-06's Test Conduct Form (TCF) file, "DE-06.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 21:18:45
EVENT SEQ. NUMBER: 40    EVENT TYPE: 10       CSC ID: 2.01
Status of the signal on the CTS interface has changed.

  comm status: enabled-failed                                    CR1

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 21:21:18
EVENT SEQ. NUMBER: 258    EVENT TYPE: 10       CSC ID: 2.01
Status of the signal on the CTS interface has changed.

  comm status: enabled-active                                    CR3

INPUT MESSAGE #:          1
  RECEIVE TIME (ADAS):    08/19/97 21:20:10
```

++++++++++++++++++++++++++++++++++++++

13	RMS ID:	0x01	LOGICAL UNIT ID: 0x20	
15	DATE:	08/19/97	TIME: 21:20:08	
22	DATAPOINT ID:	0x02	CONDITION STATUS: 0x42	
24	PARAMETER VALUE:	(001) Decimal		CR2
82	DATAPOINT ID:	0x10	CONDITION STATUS: 0x42	
84	PARAMETER VALUE:	(002) Decimal		

INPUT MESSAGE #: 159
RECEIVE TIME (ADAS): 08/19/97 21:22:17

++++++++++++++++++++++++++++++++++++++

21398	RMS ID:	0x01	LOGICAL UNIT ID: 0x20	
21400	DATE:	08/19/97	TIME: 21:22:17	
21402	DATAPOINT ID:	0x02	CONDITION STATUS: 0x40	
21404	PARAMETER VALUE:	(000) Decimal		CR4

C.2.6.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-06.TCF".

TEST # **DE-06** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _21:16_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP connects to a PC.	A patch cable connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS Prompt: Enter **"cap_itd DE-06"**	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **enter 'isi'**, then 'test12'	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "DE-06" w/ RETRY set to YES. @ISC: **"[F8] [F7] DE-06 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS, report event log event type 10 entries, then acknowledge the IPS prompt. @ISC: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 10 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7]"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output to file IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-06 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	@Patch Panel: Verify the SMP is connected to the PC.	A cable patches the SMP to the PC.	[X] Pass [ ] Fail	Stop Test
13.	Issue the command to Shutdown IPS.	The ISI shuts-down and the ISC displays	[X] Pass [ ] Fail	Stop Test

TEST # **DE-06** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _21:16_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: "**[F8] [F10] [SP] [RTN]**"	a 'login' prompt.		
14.	After the data is captured, close procomm. @PC: "**{wait} [Alt-F1] [Alt-X] [RTN]**"	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.7. TEST DE-07 - MPS Communications Error

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.7.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-07.)
b.	[XX]	[ ]	The ADAS Event log must indicate that there were two changes in the status of the MPS connection - enabled to disabled CR1 and display to enabledCR2.
c.	[XX]	[ ]	The IPS Inbound Message log must indicate that the MPS simulator received the response from the requested Subsystem Status command CR3.
d.	[XX]	[ ]	The IPS Inbound Message log must indicate that a Return-to-Normal message was received for the MPS reconnection CR4.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-07's Test Conduct Form (TCF) file, "DE-07.TCF".

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:31:31
EVENT SEQ. NUMBER: 245 EVENT TYPE: 7 CSC ID: 6.01
Status of the MPS connection has changed.

comm status: enabled-failed CR1

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:33:40
EVENT SEQ. NUMBER: 261 EVENT TYPE: 7 CSC ID: 6.01
Status of the MPS connection has changed.

comm status: enabled-active CR2

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/19/97 21:34:07

RECEIVE TIME (ADAS): 08/19/97 21:34:07
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0

MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x23
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:34:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

CR4

INPUT MESSAGE #: 2

RECEIVE TIME (IPS): 08/19/97 21:34:09
RECEIVE TIME (ADAS): 08/19/97 21:34:09
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 26
GROUP ID: 0

MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x20
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:34:06
DATAPOINT ID:	0x02	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(000) Decimal		

CR4

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/19/97 21:31:27
RECEIVE TIME (ADAS): 08/19/97 21:31:27
SIMULATOR ID: 3
MESSAGE TYPE: MPS_SYS_STATUS
MESSAGE SIZE: 27
GROUP ID: 0

MESSAGE TYPE: MPS Subsystem Status Data

RMS ID:	0x1	LOGICAL UNIT ID:	0x25
DELIMITER:	0x0	MESSAGE FUNCTION:	0x4b
DATE:	08/19/97	TIME:	4426562:4426564:4426566
AVAILABILITY STATUS:	(0x20) Online Normal		
DATAPOINT ID:	0x1	CONDITION STATUS:	0x40
DATAPOINT ID:	0x2	CONDITION STATUS:	0x40
DATAPOINT ID:	0x3	CONDITION STATUS:	0x40
DATAPOINT ID:	0x4	CONDITION STATUS:	0x40
DATAPOINT ID:	0x5	CONDITION STATUS:	0x40

CR3

C.2.7.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-07.TCF".

TEST # **DE-07**   TESTED BY: _____ Jock K. Stratton _____   DATE: _19/AUG/97   TIME: _21:27_   TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP connects to a PC.	A cable connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter **"cap_data DE-07"**	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars' prompt: enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the operational state.	[X] Pass [ ] Fail	Stop Test
8.	Start IPS test "DE-07" w/ RETRY set to YES. @ISC: **"[F8] [F7] DE-07 <13:[RTN]> [SP] <2:[RTN]>"**	ISI Response: Test Started.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by the IPS, login, report event type 7 entries, logout, then acknowledge the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 7 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS Test terminates, shutdown ADAS. @AUC 'adas' prompt: enter **"stop_adas"**	The ADAS gracefully shuts-down, and the ASC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-07 <2:[RTN]> [SP] [RTN] S [UP] [SP] <2:[RTN]> {wait} [F14]"**	@IUC: SUCCESSFULLY malloc (15000) The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	Output the IML: MPS RETURN TO NORMAL to file. @ISC: **"[F7] DE-07 <2:[RTN]> [SP] [RTN] MMMM <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **DE-07** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _21:27_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	Output the IML: MPS SUBSYSTEM STATUS to file. @ISC: **"[F7] DE-07 <2:[RTN]> [SP] [RTN] MMMMM <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
14.	@Patch Panel: verify the SMP connects to the PC.	The SMP is connected to the PC.	**[X]** Pass **[ ]** Fail	Stop Test
15.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
16.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.8. TEST DE-08 - DLP/WARP Communications Error

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.8.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-08.)
b.			The ADAS Event log must indicate that there were two changes in the status of the DLP, WARP, WMSCR, and each ITWS connection.

Pass	Fail		Failed	Active
[XX]	[ ]	DLP	[CR1]	[CR2]
[XX]	[ ]	WARP	[CR3]	[CR4]
[XX]	[ ]	WMSCR	[CR5]	[CR6]
[XX]	[ ]	ITWS 1	[CR7]	[CR8]
[XX]	[ ]	ITWS 2	[CR9]	[CR10]
[XX]	[ ]	ITWS 3	[CR11]	[CR12]
[XX]	[ ]	ITWS 4	[CR13]	[CR14]
[XX]	[ ]	ITWS 5	[CR15]	[CR16]
[XX]	[ ]	ITWS 6	[CR17]	[CR18]

	Pass	Fail	
c.	[XX]	[ ]	The System Mode datapoint must be reported as REDUCED (LU 20 DP 02 = 1) after the connections are disabled [CR19].
d.	[XX]	[ ]	The communications status datapoint (DP 01) for DLP (LU 29) [CR 20], WARP (LU 2A) [CR21], WMSCR (LU 2B) [CR22], and each ITWS (LUs 2E-33) [CRs 23-28], must be reported as configured-failed (Value = 001) after the connections are display.
d.	[XX]	[ ]	The System Mode datapoint must be reported as FULL (LU 20 DP 02 = 0) after the connections are re-enabled [CRs 29 & 30].
c.			MPS must be notified of the ALARM and RETURN-TO-NORMAL for DLP, WARP, WMSCR, and each ITWS.

Pass	Fail		ALARM	R-T-N
[XX]	[ ]	DLP	[CR31]	[CR32]
[XX]	[ ]	WARP	[CR33]	[CR34]

[XX]	[ ]	WMSCR	[CR35]	[CR36]
[XX]	[ ]	ITWS 1	[CR37]	[CR38]
[XX]	[ ]	ITWS 2	[CR39]	[CR40]
[XX]	[ ]	ITWS 3	[CR41]	[CR42]
[XX]	[ ]	ITWS 4	[CR43]	[CR44]
[XX]	[ ]	ITWS 5	[CR45]	[CR46]
[XX]	[ ]	ITWS 6	[CR47]	[CR48]
[XX]	[ ]	System Mode	[CR49]	[CR50]

The following data marked with evaluation criteria cross-reference numbers is a subset of the relevant OT&E formal test run data that has been included into DE-08's Test Conduct Form (TCF) file, "DE-08.TCF".

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:44:11
EVENT SEQ. NUMBER: 247 EVENT TYPE: 1 CSC ID: 4.05
Status of the DLP connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:46:07
EVENT SEQ. NUMBER: 285 EVENT TYPE: 1 CSC ID: 4.05
Status of the DLP connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:44:17
EVENT SEQ. NUMBER: 249 EVENT TYPE: 2 CSC ID: 4.01
Status of the WARP connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:46:14
EVENT SEQ. NUMBER: 290 EVENT TYPE: 2 CSC ID: 4.01
Status of the WARP connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:44:09
EVENT SEQ. NUMBER: 245 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:46:19
EVENT SEQ. NUMBER: 293 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:44:11
EVENT SEQ. NUMBER: 246 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:44:15
EVENT SEQ. NUMBER: 248   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:44:19
EVENT SEQ. NUMBER: 250   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:44:22
EVENT SEQ. NUMBER: 251   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:44:26
EVENT SEQ. NUMBER: 252   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:44:29
EVENT SEQ. NUMBER: 253   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:46:07
EVENT SEQ. NUMBER: 284   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:46:10
EVENT SEQ. NUMBER: 286   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:46:11
EVENT SEQ. NUMBER: 288   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 21:46:12
EVENT SEQ. NUMBER: 289   EVENT TYPE: 61   CSC ID: 21.01

Status of the ITWS connection has changed.

site id: I002
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:46:14
EVENT SEQ. NUMBER: 291 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-19-97 21:46:18
EVENT SEQ. NUMBER: 292 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-active

INPUT MESSAGE #: 158
RECEIVE TIME (ADAS): 08/19/97 21:45:17
++

21378	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
21380	DATE:	08/19/97	TIME:	21:45:17
21387	DATAPOINT ID:	0x02	CONDITION STATUS:	0x42
21389	PARAMETER VALUE:	(001) Decimal		

INPUT MESSAGE #: 159
RECEIVE TIME (ADAS): 08/19/97 21:45:18
++

22163	RMS ID:	0x01	LOGICAL UNIT ID:	0x29
22165	DATE:	08/19/97	TIME:	21:45:17
22167	DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
22169	PARAMETER VALUE:	(001) Decimal		

INPUT MESSAGE #: 160
RECEIVE TIME (ADAS): 08/19/97 21:45:18
++

22198	RMS ID:	0x01	LOGICAL UNIT ID:	0x2a
22200	DATE:	08/19/97	TIME:	21:45:17
22202	DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
22204	PARAMETER VALUE:	(001) Decimal		

INPUT MESSAGE #: 161
RECEIVE TIME (ADAS): 08/19/97 21:45:18
++

22233	RMS ID:	0x01	LOGICAL UNIT ID:	0x2b
22235	DATE:	08/19/97	TIME:	21:45:18
22237	DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
22239	PARAMETER VALUE:	(001) Decimal		

INPUT MESSAGE #: 162
RECEIVE TIME (ADAS): 08/19/97 21:45:19
++

22263	RMS ID:	0x01	LOGICAL UNIT ID:	0x2e
22265	DATE:	08/19/97	TIME:	21:45:18
22267	DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
22269	PARAMETER VALUE:	(001) Decimal		

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INPUT MESSAGE #:        163
  RECEIVE TIME (ADAS):   08/19/97 21:45:19
++++++++++++++++++++++++++++++++++++++++
22303   RMS ID:               0x01        LOGICAL UNIT ID:      0x2f
22305   DATE:               08/19/97      TIME:             21:45:18
22307   DATAPOINT ID:         0x01        CONDITION STATUS:     0x42
22309   PARAMETER VALUE:     (001) Decimal

INPUT MESSAGE #:        164
  RECEIVE TIME (ADAS):   08/19/97 21:45:19
++++++++++++++++++++++++++++++++++++++++
22343   RMS ID:               0x01        LOGICAL UNIT ID:      0x30
22345   DATE:               08/19/97      TIME:             21:45:19
22347   DATAPOINT ID:         0x01        CONDITION STATUS:     0x42
22349   PARAMETER VALUE:     (001) Decimal

INPUT MESSAGE #:        165
  RECEIVE TIME (ADAS):   08/19/97 21:45:20
++++++++++++++++++++++++++++++++++++++++
22383   RMS ID:               0x01        LOGICAL UNIT ID:      0x31
22385   DATE:               08/19/97      TIME:             21:45:19
22387   DATAPOINT ID:         0x01        CONDITION STATUS:     0x42
22389   PARAMETER VALUE:     (001) Decimal

INPUT MESSAGE #:        166
  RECEIVE TIME (ADAS):   08/19/97 21:45:20
++++++++++++++++++++++++++++++++++++++++
22423   RMS ID:               0x01        LOGICAL UNIT ID:      0x32
22425   DATE:               08/19/97      TIME:             21:45:19
22427   DATAPOINT ID:         0x01        CONDITION STATUS:     0x42
22429   PARAMETER VALUE:     (001) Decimal

INPUT MESSAGE #:        167
  RECEIVE TIME (ADAS):   08/19/97 21:45:21
++++++++++++++++++++++++++++++++++++++++
22463   RMS ID:               0x01        LOGICAL UNIT ID:      0x33
22465   DATE:               08/19/97      TIME:             21:45:19

INPUT MESSAGE #:        168
  RECEIVE TIME (ADAS):   08/19/97 21:47:34
++++++++++++++++++++++++++++++++++++++++
22503   RMS ID:               0x01        LOGICAL UNIT ID:      0x20
22505   DATE:               08/19/97      TIME:             21:47:32
22507   DATAPOINT ID:         0x02        CONDITION STATUS:     0x40
22509   PARAMETER VALUE:     (000) Decimal

INPUT MESSAGE #:        169
  RECEIVE TIME (ADAS):   08/19/97 21:47:39
++++++++++++++++++++++++++++++++++++++++
22523   RMS ID:               0x01        LOGICAL UNIT ID:      0x20
22525   DATE:               08/19/97      TIME:             21:47:33
22532   DATAPOINT ID:         0x02        CONDITION STATUS:     0x40
22534   PARAMETER VALUE:     (000) Decimal

INPUT MESSAGE #:          1
```

RECEIVE TIME (IPS): 08/19/97 21:44:30
RECEIVE TIME (ADAS): 08/19/97 21:44:30
SIMULATOR ID: 3
MESSAGE TYPE: MPS_ALARM
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x29
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/19/97	TIME:	21:44:29
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal (01) Hex ( ) Ascii		

- -

INPUT MESSAGE #: 2

RECEIVE TIME (IPS): 08/19/97 21:44:31
RECEIVE TIME (ADAS): 08/19/97 21:44:31
SIMULATOR ID: 3
MESSAGE TYPE: MPS_ALARM
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x2b
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/19/97	TIME:	21:44:29
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal (01) Hex ( ) Ascii		

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INPUT MESSAGE #: 3

RECEIVE TIME (IPS): 08/19/97 21:44:31
RECEIVE TIME (ADAS): 08/19/97 21:44:31
SIMULATOR ID: 3
MESSAGE TYPE: MPS_ALARM
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x2e
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/19/97	TIME:	21:44:29
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal (01) Hex ( ) Ascii		

- -

INPUT MESSAGE #: 4

RECEIVE TIME (IPS): 08/19/97 21:44:31
RECEIVE TIME (ADAS): 08/19/97 21:44:31
SIMULATOR ID: 3
MESSAGE TYPE: MPS_ALARM
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x2f
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/19/97	TIME:	21:44:29
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal		

(01) Hex
( ) Ascii

INPUT MESSAGE #: 5

RECEIVE TIME (IPS): 08/19/97 21:44:31
RECEIVE TIME (ADAS): 08/19/97 21:44:31
SIMULATOR ID: 3
MESSAGE TYPE: MPS_ALARM
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x30
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/19/97	TIME:	21:44:29
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal		

(01) Hex
( ) Ascii

INPUT MESSAGE #: 6

RECEIVE TIME (IPS): 08/19/97 21:44:31
RECEIVE TIME (ADAS): 08/19/97 21:44:31
SIMULATOR ID: 3
MESSAGE TYPE: MPS_ALARM
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x31
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/19/97	TIME:	21:44:29
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal		

(01) Hex
( ) Ascii

INPUT MESSAGE #: 7

RECEIVE TIME (IPS): 08/19/97 21:44:31

```
  RECEIVE TIME (ADAS):   08/19/97 21:44:31
  SIMULATOR ID:                     3
  MESSAGE TYPE:          MPS_ALARM
  MESSAGE SIZE:                    21
  GROUP ID:                         0
  MESSAGE TYPE: MPS Alarm
  RMS ID:               0x01              LOGICAL UNIT ID:      0x32
  DELIMITER:            0x00              MESSAGE FUNCTION:     41
  DATE:               08/19/97            TIME:               21:44:29
  DATAPOINT ID:         0x01              CONDITION STATUS:     0x42
  DATA TYPE:            0x01              RESOLUTION:           0x00
  PARAMETER VALUE:      (001)   Decimal
                        (01)  Hex
                        ( )     Ascii

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INPUT MESSAGE #:            8

  RECEIVE TIME (IPS):    08/19/97 21:44:31
  RECEIVE TIME (ADAS):   08/19/97 21:44:31
  SIMULATOR ID:                     3
  MESSAGE TYPE:          MPS_ALARM
  MESSAGE SIZE:                    21
  GROUP ID:                         0
  MESSAGE TYPE: MPS Alarm
  RMS ID:               0x01              LOGICAL UNIT ID:      0x33
  DELIMITER:            0x00              MESSAGE FUNCTION:     41
  DATE:               08/19/97            TIME:               21:44:29
  DATAPOINT ID:         0x01              CONDITION STATUS:     0x42
  DATA TYPE:            0x01              RESOLUTION:           0x00
  PARAMETER VALUE:      (001)   Decimal
                        (01)  Hex
                        ( )     Ascii

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
INPUT MESSAGE #:            9

  RECEIVE TIME (IPS):    08/19/97 21:44:32
  RECEIVE TIME (ADAS):   08/19/97 21:44:32
  SIMULATOR ID:                     3
  MESSAGE TYPE:          MPS_ALARM
  MESSAGE SIZE:                    21
  GROUP ID:                         0
  MESSAGE TYPE: MPS Alarm
  RMS ID:               0x01              LOGICAL UNIT ID:      0x2a
  DELIMITER:            0x00              MESSAGE FUNCTION:     41
  DATE:               08/19/97            TIME:               21:44:30
  DATAPOINT ID:         0x01              CONDITION STATUS:     0x42
  DATA TYPE:            0x01              RESOLUTION:           0x00
  PARAMETER VALUE:      (001)   Decimal
                        (01)  Hex
                        ( )     Ascii

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
INPUT MESSAGE #:           10

  RECEIVE TIME (IPS):    08/19/97 21:44:33
  RECEIVE TIME (ADAS):   08/19/97 21:44:33
```

SIMULATOR ID: 3
MESSAGE TYPE: MPS_ALARM
MESSAGE SIZE: 41
GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x20
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/19/97	TIME:	21:44:31
DATAPOINT ID:	0x02	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal		

(01) Hex
( ) Ascii

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/19/97 21:47:06
RECEIVE TIME (ADAS): 08/19/97 21:47:06
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x29
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

(02) Hex
( ) Ascii

- -

INPUT MESSAGE #: 2

RECEIVE TIME (IPS): 08/19/97 21:47:06
RECEIVE TIME (ADAS): 08/19/97 21:47:06
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2a
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

(02) Hex
( ) Ascii

- -

INPUT MESSAGE #: 3

RECEIVE TIME (IPS): 08/19/97 21:47:06
RECEIVE TIME (ADAS): 08/19/97 21:47:06
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL

MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2b
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		
	(02) Hex		
	( ) Ascii		

- -

INPUT MESSAGE #: 4

RECEIVE TIME (IPS): 08/19/97 21:47:06
RECEIVE TIME (ADAS): 08/19/97 21:47:06
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2e
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		
	(02) Hex		
	( ) Ascii		

- -

INPUT MESSAGE #: 5

RECEIVE TIME (IPS): 08/19/97 21:47:06
RECEIVE TIME (ADAS): 08/19/97 21:47:06
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2f
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		
	(02) Hex		
	( ) Ascii		

- -

INPUT MESSAGE #: 6

RECEIVE TIME (IPS): 08/19/97 21:47:06
RECEIVE TIME (ADAS): 08/19/97 21:47:06
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21

GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x30
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

(02) Hex
( ) Ascii

INPUT MESSAGE #: 7

RECEIVE TIME (IPS): 08/19/97 21:47:06
RECEIVE TIME (ADAS): 08/19/97 21:47:06
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x31
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

(02) Hex
( ) Ascii

INPUT MESSAGE #: 8

RECEIVE TIME (IPS): 08/19/97 21:47:07
RECEIVE TIME (ADAS): 08/19/97 21:47:07
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x32
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

(02) Hex
( ) Ascii

INPUT MESSAGE #: 9

RECEIVE TIME (IPS): 08/19/97 21:47:08
RECEIVE TIME (ADAS): 08/19/97 21:47:08
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0

MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x33
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal (02) Hex ( ) Ascii		

- -

INPUT MESSAGE #: 10

RECEIVE TIME (IPS): 08/19/97 21:47:09
RECEIVE TIME (ADAS): 08/19/97 21:47:09
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 41
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x20
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	21:47:06
DATAPOINT ID:	0x02	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(000) Decimal (00) Hex ( ) Ascii		

C.2.8.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-08.TCF".

TEST # **DE-08** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _21:39_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	**[X]** Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	**[X]** Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter **"cap_itd DE-08"**	Procomm starts, with the log file opened.	**[X]** Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	**[X]** Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	**[X]** Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	**[X]** Pass [ ] Fail	Stop Test
7.	Start IPS test "DE-08" w/ RETRY set to YES. @ISC: **"[F8] [F7] DE-08 <13:[RTN]> [SP] <2:[RTN]>"**	@ISC: SUCCESSFULLY malloc (15000)	**[X]** Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the Operational State.	**[X]** Pass [ ] Fail	Stop Test
9.	When prompted by the IPS, login, report event type 1, 2, 12, & 61 entries, logout, acknowledge prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 1 [RTN] {wait} [F14] [F11] <7:[RTN]> 2 [RTN] {wait} [F14] [F11] <7:[RTN]> 12 [RTN] {wait} [F14] [F11] <7:[RTN]> 61 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	**[X]** Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @AUC: **"stop_adas [RTN]"**	The AUC indicates the ADAS is DOWN.	**[X]** Pass [ ] Fail	Stop Test
11.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-08 <2:[RTN]> [SP] [RTN] S [UP] [SP] <2:[RTN]> {wait} [F14]"**	@IUC: SUCCESSFULLY malloc (15000) The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test

TEST # **DE-08** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _21:39_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
12.	Output the IML: MPS RETURN TO NORMAL to file. @ISC: **"[F7] DE-08 <2:[RTN]> [SP] [RTN] MMMM <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
13.	Output the IML: MPS STATE CHANGE to file. @ISC: **"[F7] DE-08 <2:[RTN]> [SP] [RTN] MMM <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The default screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
14.	@Patch Panel: Verify SMP connects to the PC.	The SMP is connected to the PC.	**[X]** Pass **[ ]** Fail	Stop Test
15.	Shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
14.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.9. TEST DE-10 - CTS Communications Error

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.9.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-10.)
b.	[XX]	[ ]	There must be Event log entries for the two changes in the status of the CTS interface; initial loss of connection CR1 and the subsequent reconnection CR2.
c.	[XX]	[ ]	An Event log entry will show that ADAS reset the time in response to the five minute "shift" in the CTS time signal CR3. ADAS Event log must indicate that ADAS synchronized with CTS(IPS) [CR4 compared to CR5].
d.	[XX]	[ ]	The MPS simulator must receive the ALARM CR6 and Return-to-Normal messages CR7.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-10's Test Conduct Form (TCF) file, "DE-10.TCF".

```
EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-19-97 22:14:14          CR5
EVENT SEQ. NUMBER: 292    EVENT TYPE: 9       CSC ID: 2.01
ADAS time has been reset by CTM.                                              CR3

  current time: 08-19-97  22:09:13
  new time: 08-19-97  22:14:14                                                CR4

EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-19-97 22:06:54
EVENT SEQ. NUMBER: 266    EVENT TYPE: 10      CSC ID: 2.01
Status of the signal on the CTS interface has changed.

  comm status: enabled-failed                                                 CR1

EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-19-97 22:08:46
EVENT SEQ. NUMBER: 282    EVENT TYPE: 10      CSC ID: 2.01
```

Status of the signal on the CTS interface has changed.

comm status: enabled-active CR2

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/19/97 22:05:08
RECEIVE TIME (ADAS): 08/19/97 22:07:08
SIMULATOR ID: 3
MESSAGE TYPE: MPS_ALARM
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x2c
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/19/97	TIME:	22:07:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal		CR6
	(01) Hex		
	( ) Ascii		

INPUT MESSAGE #: 2

RECEIVE TIME (IPS): 08/19/97 22:07:08
RECEIVE TIME (ADAS): 08/19/97 22:14:08
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2c
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/19/97	TIME:	22:09:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		CR7
	(02) Hex		
	( ) Ascii		

C.2.9.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-10.TCF".

TEST # **DE-10**   TESTED BY: _____ Jock K. Stratton _____   DATE: _19/AUG/97   TIME: _21:58_   TEST DIRECTOR'S INITIALS ___AUG

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter '**cap_itd DE-10**'	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 51**"	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	Identify the ADAS/IPS CTS Patch Panel Module (PPM) on the Patch Panel and an unused patch cable.	The ADAS/IPS CTS PPM is 2-6	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "DE-10" w/ RETRY set to YES. @ISC: "**[F8] [F7] DE-10 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter "**sa clean**"	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	When an IPS Event is indicated: Display event, plug a patch cable into the top port of the ADAS/IPS CTS PPM, then Acknowledge event. @ISC: "**{wait} <2:[F14]> [F6] [F7]**" @Patch Panel: "**{insert cable}**" @ISC: "**[F7]**"	The Event Window closes.	[X] Pass [ ] Fail	Stop Test
10.	When an IPS Event is indicated: Display event, unplug the patch cable from the ADAS/IPS CTS PPM, then Acknowledge event. @ISC: "**{wait} [F7]**" @Patch Panel: "**{unplug cable}**" @ISC: "**[F7]**"	The Event Window closes.	[X] Pass [ ] Fail	Stop Test
11.	When prompted by the IPS, login, report event log event type 9 & 10 entries, logout, then acknowledge the IPS prompt. @ISI: "**{wait} [F7]**"	The event is displayed at the ISI.	[X] Pass [ ] Fail	Stop Test

TEST # **DE-10** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _21:58_ TEST DIRECTOR'S INITIALS ___AUG

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 9 [RTN] {wait} [F14] [F11] <7:[RTN]> 10 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The PC captures the report outputs. The ASC displays the 'login' prompt. The event is removed from the ISI.		
12.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
13.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-10 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
14.	Output the IML: MPS ALARM to file. @ISC: **"[F7] DE-10 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	Output the IML: MPS RETURN TO NORMAL to file. @ISC: **"[F7] DE-10 <2:[RTN]> [SP] [RTN] MMMM <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
16.	Reset the IPS test time offset. @ISC: **"[F8] [F11] [SP] [RTN] [F14]"**	The IPS test time offset is reset to 0.	[X] Pass [ ] Fail	Stop Test
17.	@Patch Panel: Verify the LOG is connected to the PC.	The LOG output is redirected to the PC.	[X] Pass [ ] Fail	Stop Test
18.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
19.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test
20.	@IUC 'aldars' prompt: enter **"setdate"**.	The IPS outputs 10 digit date/time in the format MMDDhhmmYY format.	[X] Pass [ ] Fail	Stop Test
21.	@AUC 'adas' prompt: enter **"setdate [SP] {the 10 digits output by IPS @IUC}"**.	The ADAS system date/time is reset to the current date/time.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.10. TEST DE-14 - External Error Events

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.10.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-14.)
b.	[XX]	[ ]	Successful completion of the manual procedures for this test case indicates the ASC reflected the occurrence of the file error event.
c.	[XX]	[ ]	Successful completion of the manual procedures for this test case indicates the second Erroneous Message event did not appear on the ASC while it was logged off.
d.	[XX]	[ ]	Three type 21 and one type 43 events must appear in the Event Log File CR1-3 & CR4.
e.	[XX]	[ ]	Each of the Event notifications must properly identify the associated event as in CR5.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-14's Test Conduct Form (TCF) file, "DE-14.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 22:38:15
EVENT SEQ. NUMBER: 259    EVENT TYPE: 21     CSC ID: 11.02          CR1
An erroneous message has been triggered by System Logging.

  message type: ADAS received erroneous message
  error type: MPS request   error code: Invalid request
  original csc id: 10.03  error number: 1
  error offset: 0                                                   CR5

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-19-97 22:39:03
EVENT SEQ. NUMBER: 262    EVENT TYPE: 21     CSC ID: 11.02          CR2
An erroneous message has been triggered by System Logging.

  interface id: K001  message type: ADAS received erroneous message
```

error type: AWOS weather message   error code: Time exception
original csc id: 3.02 error number: 2
error offset: 36 CR5

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 22:42:02
EVENT SEQ. NUMBER: 289   EVENT TYPE: 21   CSC ID: 11.02 CR3
An erroneous message has been triggered by System Logging.

interface id: K001 message type: ADAS received erroneous message
error type: AWOS weather message   error code: Time exception
original csc id: 3.02 error number: 3
error offset: 136 CR5

EVENT PRIORITY: critical   DATE/TIME STAMP: 08-19-97 22:44:28
EVENT SEQ. NUMBER: 317   EVENT TYPE: 43   CSC ID: 13.04 CR4
Disk I/O error detected while attempting to access a file.

file name: /usr/adas/adasrun/data/SS/adb env prm CR5

C.2.10.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-14.TCF".

TEST # **DE-14** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _22:31_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter **"cap_data DE-14"**	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **enter 'isi'**, then **'test12'**	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
7.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts, reaching Initialization State.	[X] Pass [ ] Fail	Stop Test
8.	Login to the initialization state, set event 21 to print, notify SI, and notify MPS, install the adb, and continue with a COLD Start. @ASC: **"si [RTN] test12 [RTN] [F8] [F8] e [RTN] 21 <2:[RTN]> [SP] <2:[RTN]> [F7] {wait} [F14] [F9] [SP] [RTN] {wait} <2:[F14]> [F7] [F9] [RTN] [SP] [RTN]"**	The SI screen is displayed. Event 21 is updated. The updated adb is installed. ADAS continues a COLD start.	[X] Pass [ ] Fail	Stop Test
9.	Start IPS test "DE-14" w/ RETRY set to YES. @ISC: **"[F8] [F7] DE-14 <13:[RTN]> [SP] <2:[RTN]> {wait} <3:[F14]>"**	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
10.	When IPS Event occurs: login to the ADAS SI. @ISC: **"{wait} <3:[F14]> [F6] [F7]"** @ASC 'login': **enter 'isi'**, then 'test12'	The Event Window opens. The SI Default screen is displayed.	[X] Pass [ ] Fail	Stop Test
11.	@AUC 'adas' prompt: enter **"lock_adb"**	Write permission removed from adb_env_prm.	[X] Pass [ ] Fail	Stop Test
12.	Edit the METAR Additive Inclusion Times & change the 6 Hr Precipitation Report field value to 5.	The field is changed. The response window opens, and closes. The "Adaptation Data Commands" screen is	[X] Pass [ ] Fail	Stop Test

TEST # **DE-14** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _22:31_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ASC: **"[F8] [F8] M [RTN] [DOWN] 5 <4:[RTN]> {wait} [F14]"**	displayed.		
13.	Install the Working Adaptation Parameters. @ASC: **"[F9] [SP] [RTN] {wait} [F14]"**	The response window, then the "Adaptation Parameter Commands" screen are displayed.	[X] Pass [ ] Fail	Stop Test
14.	Make the Working Adaptation Parameters Permanent. @ASC: **"[F11] [SP] [RTN] {wait} <2:[F14]>"**	The response window is displayed, then the SI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	Dequeue all Events until both Disk IO and Message Time Stamp (Types 43 & 21) Events are displayed. @ASC: **"[F6] <repeat :[F8] [F14]>"**	Both Event Types 43, DISK IO, and 21, AWOS Message Time Stamp, are received and displayed.	[X] Pass [ ] Fail	Stop Test
16.	Reset all datapoints. @ASC: **"<2:[F14]> [F10] [F8] <2:[DOWN]> [RTN]"**	All datapoints are reset.	[X] Pass [ ] Fail	Stop Test
17.	Log off ADAS Specialist Interface and ack IPS event. @ASC: **"<3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The UNIX login prompt is displayed. The Event Window closes.	[X] Pass [ ] Fail	Stop Test
18.	When prompted by the IPS: login, report event types 21 & 43 entries, logout, then ack the IPS prompt. @ISI: **"{wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 21 [RTN] {wait} [F14] [F11] <7:[RTN]> 43 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
19.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC 'adas' prompt: enter '**stop_adas**'	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
20.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] DE-14 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
21.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PC for data capture.	A cable patches the SMP port's top socket to the PSF-PC port's top socket.	[X] Pass [ ] Fail	Stop Test
22.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test

TEST # **DE-14** TESTED BY: _____ Jock K. Stratton _____ DATE: _19/AUG/97 TIME: _22:31_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
23.	After the data is captured at PC, close procomm. @PC: "**{wait} [Alt-F1] [Alt-X] [RTN]**"	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test
24.	@AUC 'adas' prompt: enter "**unlock_adb**"	@AUC: directory listing for adb_env_prm shows both read & write permission.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.11. TEST DE-15 - CTS Error

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.11.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-15.)
b.	[XX]	[ ]	The 7 identified CTS events are reported via the SI CR1 - CR7 and in the Event Log CR8 - CR14
c.	[XX]	[ ]	The description must properly identify the event as in type 8 CR15 & CR17, type 10 CR16 & CR18.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-15's Test Conduct Form (TCF) file, "DE-15.TCF".

```
.  08-20-97  18:27:31  . Events:    9 . Responses:    0 .    ESCAPE CMDS
.
..........................    DISPLAY    NEXT    EVENT    MESSAGE
.........................
.EVENT  PRIORITY:  non-critical        DATE/TIME  STAMP:  08-20-97  18:27:22
.
.EVENT  SEQ. NUMBER:  369      EVENT  TYPE:  8         CSC  ID:  2.01     CR1
.
.An    error    has    occurred    on    the    CTS    interface.
.
.
.
.  comm  status:  invalid  CTS  msg  recvd                              CR15
.

.  08-20-97  18:28:44  . Events:    2 . Responses:    0 .    ESCAPE CMDS
.
..........................    DISPLAY    NEXT    EVENT    MESSAGE
.........................
.EVENT  PRIORITY:  non-critical        DATE/TIME  STAMP:  08-20-97  18:28:12
.
```

.EVENT SEQ. NUMBER: 386 EVENT TYPE: 10 CSC ID: 2.01 CR2

.Status of the signal on the CTS interface has changed.

comm status: enabled-failed CR16

. 08-20-97 18:28:57 . Events: 1 . Responses: 0 . ESCAPE CMDS

.... DISPLAY NEXT EVENT MESSAGE

....

.EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:28:55

.EVENT SEQ. NUMBER: 387 EVENT TYPE: 10 CSC ID: 2.01

.Status of the signal on the CTS interface has changed.

comm status: enabled-active CR3

. 08-20-97 18:30:20 . Events: 1 . Responses: 0 . ESCAPE CMDS

.... DISPLAY NEXT EVENT MESSAGE

....

.EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:30:13

.EVENT SEQ. NUMBER: 401 EVENT TYPE: 10 CSC ID: 2.01

.Status of the signal on the CTS interface has changed.

comm status: enabled-failed CR4

. 08-20-97 18:31:00 . Events: 1 . Responses: 0 . ESCAPE CMDS

.... DISPLAY NEXT EVENT MESSAGE

....

.EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:30:57

.EVENT SEQ. NUMBER: 402 EVENT TYPE: 10 CSC ID: 2.01

.Status of the signal on the CTS interface has changed.

comm status: enabled-active CR5

. 08-20-97 18:32:25 . Events: 1 . Responses: 0 . ESCAPE CMDS

.... DISPLAY NEXT EVENT MESSAGE

....

.EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:32:13
.
.EVENT SEQ. NUMBER: 415 EVENT TYPE: 10 CSC ID: 2.01
.
.Status of the signal on the CTS interface has changed.
.
.
.
. comm status: enabled-failed CR6
.

. 08-20-97 18:33:01 . Events: 1 . Responses: 0 . ESCAPE CMDS
.
.... DISPLAY NEXT EVENT MESSAGE
....
.EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:32:57
.
.EVENT SEQ. NUMBER: 416 EVENT TYPE: 10 CSC ID: 2.01
.
.Status of the signal on the CTS interface has changed.
.
.
.
. comm status: enabled-active CR7
.

EVENT SEQ. NUMBER: 369 EVENT TYPE: 8 CSC ID: 2.01 CR8
An error has occurred on the CTS interface.

comm status: invalid CTS msg recvd CR17

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:28:12
EVENT SEQ. NUMBER: 386 EVENT TYPE: 10 CSC ID: 2.01 CR9
Status of the signal on the CTS interface has changed.

comm status: enabled-failed CR18

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:28:55
EVENT SEQ. NUMBER: 387 EVENT TYPE: 10 CSC ID: 2.01
Status of the signal on the CTS interface has changed.

comm status: enabled-active CR10

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:30:13
EVENT SEQ. NUMBER: 401 EVENT TYPE: 10 CSC ID: 2.01
Status of the signal on the CTS interface has changed.

comm status: enabled-failed CR11

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:30:57
EVENT SEQ. NUMBER: 402 EVENT TYPE: 10 CSC ID: 2.01
Status of the signal on the CTS interface has changed.

comm status: enabled-active CR12

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:32:13
EVENT SEQ. NUMBER: 415 EVENT TYPE: 10 CSC ID: 2.01
Status of the signal on the CTS interface has changed.

comm status: enabled-failed CR13

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 18:32:57
EVENT SEQ. NUMBER: 416 EVENT TYPE: 10 CSC ID: 2.01
Status of the signal on the CTS interface has changed.

comm status: enabled-active CR14

C.2.11.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-15.TCF".

TEST # **DE-15** TESTED BY: _____ Jock K. Stratton _____ DATE: _20/AUG/97_ TIME: _18:23_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter '**cap_itd DE-15**'	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter '**cl 47**'	AUC Displays: Config 47 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **test 'isi [RTN] test12 [RTN]**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "DE-15" w/ RETRY set to YES. @ISC: "**[F8] [F7] DE-15 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter '**sa clean**'	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	Login to ADAS in the Operational State. @ASC 'login': "si [RTN] **test12 [RTN]**"	The Specialist Interface Default screen will be displayed.	[X] Pass [ ] Fail	Stop Test
10.	Prepare to dequeue ADAS Events as they arrive. @ASC: "**[F6] {wait} [F8]**"	The Event / Response window is displayed.	[X] Pass [ ] Fail	Stop Test
11.	Dequeue Events, print CTS Invalid Message screen. @ASC: "**<repeat:[F14] {wait} [F8]> [F2]**"	An Event Type 8 is displayed. The PC captures the print screen output.	[X] Pass [ ] Fail	Stop Test
12.	Dequeue Events 'til CTS Enabled-Failed is displayed. @ASC: "**<repeat:[F14] {wait} [F8]> [F2]**"	An Event Type 10 is received, indicating the CTS Interface is Enabled-Failed.	[X] Pass [ ] Fail	Stop Test
13.	Dequeue Events 'til CTS Enabled-Active is displayed. @ASC: "**<repeat:[F14] {wait} [F8]> [F2]**"	An Event Type 10 is received indicating the CTS Interface is Enabled-Active.	[X] Pass [ ] Fail	Stop Test
14.	Repeat the two previous procedure steps twice.	The ASC displays 4 more Event Type 10's indicate 2 more CTS loss &	[X] Pass [ ] Fail	Stop Test

TEST # **DE-15** TESTED BY: _____ Jock K. Stratton _____ DATE: _20/AUG/97_ TIME: _18:23_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ASC: "**<repeat:[F14] {wait} [F8]> [F2]**"	reconnections.	**[X]** Pass [ ] Fail	
15.	When prompted by the IPS, report event types 8 & 10 entries, logout, then ack the IPS prompt. @ISI: "**[F14] [F6] {wait} [F7]**" @ASC: "**<2:[F14]> [F13] [F11] <7:[RTN]> 8 [RTN] {wait} [F14] [F11] <7:[RTN]> 10 [RTN] <wait} <3:[F14]> [SP] [RTN]**" @ISC: "**[F7]**"	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	**[X]** Pass [ ] Fail	Stop Test
16.	Wait for IPS Test Termination, Shutdown ADAS. @AUC DOS prompt: enter '**stop_adas**'	The IPS test terminates. The ADAS is shutdown.	**[X]** Pass [ ] Fail	Stop Test
17.	Reset the IPS test time offset. @ISC: "**[F7] <2:[F14]> [F8] [F11] [SP] [RTN]**"	The IPS test time offset is reset to 0.	**[X]** Pass [ ] Fail	Stop Test
18.	@Patch Panel: verify IPS LOG connects to the PC.	A cable patches the LOG to the PC.	**[X]** Pass [ ] Fail	Stop Test
19.	Shutdown the IPS. @ISC: "**[F8] [F10] [SP] [RTN]**"	The ISI closes and the IPS shuts-down. A 'login' prompt displayed at the ASC.	**[X]** Pass [ ] Fail	Stop Test
20.	Display the IPS unix system date/time. @IUC 'aldars' prompt: enter '**setdate**'	The IPS outputs 10 digit date/time in the format MMDDhhmmYY format.	**[X]** Pass [ ] Fail	Stop Test
21.	@AUC 'adas' prompt: enter '**setdate [SP] {the 1 digits output by IPS @IUC}**'.	The ADAS system date/time is reset to the current date/time.	**[X]** Pass [ ] Fail	Stop Test
22.	After all data is captured, close procomm. @PC: "**{wait} [Alt-F1] [Alt-X] [RTN]**"	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.12. TEST DE-16 - Recoverable I/O Errors

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.12.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

Pass Fail

a. [XX] [ ] Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-16.)

b. Each simulator disable/enable must have an associated event in the ADAS Event log and ADAS must continue operation.

Pass	Fail		Failed	Active
[XX]	[ ]	AWOS-K001	[CR5]	[CR6]
[XX]	[ ]	CTS	[CR9]	[CR10]
[XX]	[ ]	DLP	[CR1]	[CR2]
[XX]	[ ]	MPS	[CR7]	[CR8]
[XX]	[ ]	WARP	[CR3]	[CR4]
[XX]	[ ]	WMSCR	[CR11]	[CR12]
[XX]	[ ]	ITWS 1	[CR13]	[CR14]
[XX]	[ ]	ITWS 2	[CR15]	[CR16]
[XX]	[ ]	ITWS 3	[CR17]	[CR18]
[XX]	[ ]	ITWS 4	[CR19]	[CR20]
[XX]	[ ]	ITWS 5	[CR21]	[CR22]
[XX]	[ ]	ITWS 6	[CR23]	[CR24]

Continued operation of ADAS was proven by the ability to retrieve the ADAS Event log data after communications of the 12 simulators identified had been disabled for 60 seconds, then re-enabled.

The following data marked with evaluation criteria cross-reference numbers is a subset of the relevant OT&E formal test run data that has been included into DE-16's Test Conduct Form (TCF) file, "DE-16.TCF".

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 19:31:16
EVENT SEQ. NUMBER: 267   EVENT TYPE: 1   CSC ID: 4.05
Status of the DLP connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 19:32:16
EVENT SEQ. NUMBER: 279   EVENT TYPE: 1   CSC ID: 4.05
Status of the DLP connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 19:32:15
EVENT SEQ. NUMBER: 278   EVENT TYPE: 2   CSC ID: 4.01
Status of the WARP connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 19:33:28
EVENT SEQ. NUMBER: 291   EVENT TYPE: 2   CSC ID: 4.01
Status of the WARP connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 19:29:12
EVENT SEQ. NUMBER: 243   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K001 controller: 1

channel: 1

Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 19:30:12
EVENT SEQ. NUMBER: 254   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K001 controller: 1

channel: 1

Link Status: up   Event: link reset

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 19:35:15
EVENT SEQ. NUMBER: 324   EVENT TYPE: 7   CSC ID: 6.01
Status of the MPS connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 19:36:28
EVENT SEQ. NUMBER: 346   EVENT TYPE: 7   CSC ID: 6.01
Status of the MPS connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:30:29
EVENT SEQ. NUMBER: 255 EVENT TYPE: 10 CSC ID: 2.01
Status of the signal on the CTS interface has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:31:13
EVENT SEQ. NUMBER: 266 EVENT TYPE: 10 CSC ID: 2.01
Status of the signal on the CTS interface has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:33:15
EVENT SEQ. NUMBER: 290 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:34:27
EVENT SEQ. NUMBER: 305 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:34:16
EVENT SEQ. NUMBER: 302 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:34:21
EVENT SEQ. NUMBER: 303 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:34:25
EVENT SEQ. NUMBER: 304 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:34:28
EVENT SEQ. NUMBER: 306 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:34:31
EVENT SEQ. NUMBER: 307 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:34:35
EVENT SEQ. NUMBER: 308 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:35:16
EVENT SEQ. NUMBER: 325 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:35:16
EVENT SEQ. NUMBER: 326 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:35:19
EVENT SEQ. NUMBER: 327 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:35:19
EVENT SEQ. NUMBER: 328 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:35:23
EVENT SEQ. NUMBER: 329 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-20-97 19:35:26
EVENT SEQ. NUMBER: 330 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-active

C.2.12.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-16.TCF".

TEST # **DE-16** TESTED BY: _____ Jock K. Stratton _____ DATE: _20/AUG/97_ TIME: _19:24_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter **'cap_itd DE-16'**	Procomm starts with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **'isi [RTN]** test12 [RTN]'	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	@AUC 'adas' prompt: enter **'sa clean'**	AUC Displays: Starting ADAS...	[X] Pass [ ] Fail	Stop Test
8.	Start IPS test "DE-16" w/ RETRY set to YES. @ISC: **"[F8] [F7] DE-16 <13:[RTN]> <2:[RTN]>"**	ISI Response: Test Started.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by the IPS: login, report event types 1, 2, 5, 7, 10, 12, & 61 entries, logout, then ack the IPS prompt. @ISI: **"{wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 1 [RTN] {wait} [F14] [F11] <7:[RTN]> 2 [RTN] {wait} [F14] [F11] <7:[RTN]> 5 [RTN] {wait} [F14] [F11] <7:[RTN]> 7 [RTN] {wait} [F14] [F11] <7:[RTN]> 10 [RTN] {wait} [F14] [F11] <7:[RTN]> 12 [RTN] {wait} [F14] [F11] <7:[RTN]> 61 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report outputs. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC 'adas' prompt: enter **'stop_adas'**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	@Patch Panel: verify that a patch cable re-directs the IPS SMP output to the PSF-PC for	A cable patches the SMP port's top	[X] Pass [ ] Fail	Stop Test

TEST # **DE-16** TESTED BY: _____ Jock K. Stratton _____ DATE: _20/AUG/97_ TIME: _19:24_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	data capture.	socket to the PSF-PC port's top socket.		
12.	Issue the command to Shutdown IPS. @ISC: "**[F8] [F10] [SP] [RTN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
13.	After the data is captured, close procomm. @PC: "**{wait} [Alt-F1] [Alt-X] [RTN]**"	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.2.13. TEST DE-18 - Recoverable I/O Init. Error (NLDN)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.2.13.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test DE-18.)
b.	[XX]	[ ]	The ADAS Event Log must show that ADAS detected the off-line NLDN Simulator CR1 and continued to the Operational State - Reduce Mode as indicated by the SYS_MODE datapoint (LU 20 DP 02) in the Datapoint request CR2*.
b.	[XX]	[ ]	After communication was restored, the NLDN simulator must be reported as active CR3.
d.	[XX]	[ ]	The transition from Reduce to Full Mode must have occurred as indicated by the third request of the SYS_MODE datapoint (LU20 DP02) CR4*.

* The time stamps shown on the datapoint messages indicates when it was retrieved and not when the datapoint changed value.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into DE-18's Test Conduct Form (TCF) file, "DE-18.TCF".

```
EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-20-97 20:19:18
EVENT SEQ. NUMBER: 63     EVENT TYPE: 62       CSC ID: 22.02
Status of the NLDN connection has changed.

  comm status: enabled-failed                                        CR1

EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-20-97 20:21:32
EVENT SEQ. NUMBER: 252     EVENT TYPE: 62       CSC ID: 22.01
Status of the NLDN connection has changed.

  comm status: enabled-active                                        CR3

INPUT MESSAGE #:         158
  RECEIVE TIME (ADAS):    08/20/97 20:21:15
```

++

21378	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
21380	DATE:	08/20/97	TIME:	20:21:16
21382	DATAPOINT ID:	0x02	CONDITION STATUS:	0x42
21384	PARAMETER VALUE:	(001) Decimal		

CR2

INPUT MESSAGE #: 159
RECEIVE TIME (ADAS): 08/20/97 20:22:36

++

21398	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
21400	DATE:	08/20/97	TIME:	20:22:36
21402	DATAPOINT ID:	0x02	CONDITION STATUS:	0x40
21404	PARAMETER VALUE:	(000) Decimal		

CR4

C.2.13.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "DE-18.TCF".

TEST # **DE-18** TESTED BY: _____ Jock K. Stratton _____ DATE: _18/AUG/97_ TIME: _20:14_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@Patch Panel: A patch cord disables NLDN.	A patch cable breaks the NLDN connection.	[X] Pass [ ] Fail	Redo Step
4.	@PC DOS prompt: enter '**cap_itd DE-18**'	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
5.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
6.	@AUC 'adas' prompt: enter "**cl 51**"	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
7.	@ISC 'login': "'**isi [RTN] test12 [RTN]**'"	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
8.	Start IPS test "DE-18" w/ RETRY set to YES. @ISC: "**[F8] [F7] DE-18 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
9.	@AUC 'adas' prompt: enter "**sa clean**"	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
10.	When prompted by the IPS, disconnect the NLDN patch cable, then acknowledge the IPS prompt. @ISI: "**{wait} <2:[F14]> [F6] {wait} [F7]**" @Patch Panel: Disconnect the NLDN port cable. @ISC: "**[F7]**"	The event is displayed. The ADAS/IPS NLDN comm is enabled. The EVENT/RESPONSE screen is displayed.	[X] Pass [ ] Fail	Disconnect Patch Cable
11.	When prompted by the IPS, login, report event type 62 entries, logout, then acknowledge the IPS prompt. @ISI: "**{wait} [F7]**" @ASC: "**si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 62 [RTN] {wait} <3:[F14]> [SP] [RTN]**" @ISC: "**[F7]**"	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
12.	When the IPS test terminates, shutdown ADAS. @ISI: "**{wait} [F7] <2:[F14]>**"	The ISI displays it's default screen.	[X] Pass [ ] Fail	Stop Test

TEST # **DE-18** TESTED BY: _____ Jock K. Stratton _____ DATE: _18/AUG/97_ TIME: _20:14_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@AUC: **"stop_adas [RTN]"**	The AUC indicates the ADAS is DOWN.		
13.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7]** DE-18 **<2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
14.	@Patch Panel: verify the IPS LOG connects to a PC.	The LOG output is redirected to the PC.	**[X]** Pass **[ ]** Fail	Redo Step
15.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
16.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.3. CATEGORY DTE - Developmental Test & Evaluation Tests

The test results of the ADAS/ALDARS OT&E Formal Test Runs of the ALDARS DT&E Tests were identical to the test results during the DT&E Formal Test Runs. The DT&E test details have been documented in the ADAS/ALDARS Contractor's DT&E Test Plan, Test Procedures, and Test Report documents. For further information about category DTE tests, refer to the contractor's DT&E test documentation.

C.4. CATEGORY IN - Integration Tests

C.4.1. TEST IN-01 - Channel Connection Test FST (MPS)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.1.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IN-01.)
b.	[XX]	[ ]	The retrieved ADAS Event Log must show that ADAS successfully detected the loss of connection CR1 with the MPS simulator and the subsequent re-connection CR2.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IN-01's Test Conduct Form (TCF) file, "IN-01.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-18-97 14:36:06
EVENT SEQ. NUMBER: 254    EVENT TYPE: 7       CSC ID: 6.01
Status of the MPS connection has changed.

  comm status: enabled-failed                                      CR1

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-18-97 14:36:37
EVENT SEQ. NUMBER: 260    EVENT TYPE: 7       CSC ID: 6.01
Status of the MPS connection has changed.
```

comm status: enabled-active CR2

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/18/97 14:37:07
RECEIVE TIME (ADAS): 08/18/97 14:37:07
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x23
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/18/97	TIME:	14:37:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

CR2

C.4.1.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IN-01.TCF".

TEST # **IN-01** TESTED BY: ____ Jock K. Stratton ______ DATE: 18/Aug/97 TIME: 14:28 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter **"cap_itd IN-01"**	Procomm starts, w/ the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **enter 'isi'**, then 'test12'	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "IN-01" w/ RETRY set to "YES". @ISC: **"[F8] [F7] IN-01 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the Operational State	[X] Pass [ ] Fail	Stop Test
9.	When prompted by the IPS, login, report event type 7 entries, logout, then acknowledge the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 7 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output(s). The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC 'adas' prompt: enter **"stop_adas"**	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS ALARM to file. @ISC: **"[F7] [F8] [F7] IN-01 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	Output the IML: MPS RETURN TO NORMAL to file. @ISC: **"[F7] IN-01 <2:[RTN]> [SP] [RTN] M <3:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **IN-01** TESTED BY: ____ Jock K. Stratton ______ DATE: 18/Aug/97 TIME: 14:28 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	@Patch Panel: Re-direct the IPS LOG to the PC.	A cable redirects the LOG output to the PC.	**[X]** Pass [ ] Fail	Stop Test
14.	Issue the command to Shutdown IPS. @ISC: "**[F8] [F10] [SP] [RTN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
15.	After the data is captured, close procomm. @PC: "**{wait} [Alt-F1] [Alt-X] [RTN]**"	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.4.2. TEST IN-02 - Channel Connection Test FST (AWOS)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.2.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IN-02.)
b.	[XX]	[ ]	The retrieved ADAS Event Log must show that ADAS successfully detected the loss of connection CR1 with the AWOS simulator and the subsequent re-connection CR2.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IN-02's Test Conduct Form (TCF) file, "IN-02.TCF".

```
EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-18-97 14:57:02
EVENT SEQ. NUMBER: 258     EVENT TYPE: 5       CSC ID: 3.02
Status of the AWOS connection has changed.

  AWOS station id: K001  controller: 1
  channel: 1
  Link Status: link down    Event: link down                          CR1

EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-18-97 14:57:31
EVENT SEQ. NUMBER: 267     EVENT TYPE: 5       CSC ID: 3.02
Status of the AWOS connection has changed.

  AWOS station id: K001  controller: 1
  channel: 1
  Link Status: up   Event: link reset                                 CR2

INPUT MESSAGE #:          1

  RECEIVE TIME (IPS):     08/18/97 14:57:07
  RECEIVE TIME (ADAS):    08/18/97 14:57:07
  SIMULATOR ID:                  3
  MESSAGE TYPE:           MPS_ALARM
  MESSAGE SIZE:                 21
  GROUP ID:                      0
  MESSAGE TYPE: MPS Alarm
  RMS ID:               0x01           LOGICAL UNIT ID:      0x41
```

DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	08/18/97	TIME:	14:57:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal		

CR1

(01) Hex
( ) Ascii

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/18/97 14:58:07
RECEIVE TIME (ADAS): 08/18/97 14:58:07
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x41
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/18/97	TIME:	14:58:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

CR2

(02) Hex
( ) Ascii

C.4.2.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IN-02.TCF".

TEST # **IN-02** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 14:50 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@ PC: Start data capture. **'cap_itd IN-02'**	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "IN-02" w/ RETRY set to "YES". @ISC: **"[F8] [F7] IN-02 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC 'adas' prompt: enter **'sa clean'**	All datastores are removed. The ADAS is started.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS, report event log event type 5 entries, then acknowledge the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 5 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS ALARM to file. @ISC: **"[F7] [F8] [F7] IN-02 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	Output the IML: MPS RETURN TO NORMAL to file.	The output file is in directory '/tmp'.	[X] Pass [ ] Fail	Stop Test

TEST # **IN-02** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 14:50 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: "**[F7] IN-02 <2:[RTN]> [SP] [RTN] M <3:[DOWN]> <2:[RTN]> {wait} <3:[F14]>**"	The ISI default screen is displayed.		
13.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the LOG port's top socket to the PSF-PC port's socket.	[X] Pass [ ] Fail	Stop Test
14.	Issue the command to shutdown the IPS. @ISC: "**[F8] [F10] [SP] [RTN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
15.	After the data is captured, close procomm. @PC: "**{wait} [Alt-F1] [Alt-X] [RTN]**"	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.4.3. TEST IN-03 - Channel Connection Test FST (DLP)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.3.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IN-03.)
b.	[XX]	[ ]	The retrieved ADAS Event Log must show that ADAS successfully detected the loss of connection CR1 with the DLP simulator and the subsequent re-connection CR2.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IN-03's Test Conduct Form (TCF) file, "IN-03.TCF".

```
EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-18-97 15:12:05
EVENT SEQ. NUMBER: 264     EVENT TYPE: 1        CSC ID: 4.05
Status of the DLP connection has changed.

  comm status: enabled-failed                                        CR1

EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-18-97 15:12:36
EVENT SEQ. NUMBER: 273     EVENT TYPE: 1        CSC ID: 4.05
Status of the DLP connection has changed.

  comm status: enabled-active                                        CR2

INPUT MESSAGE #:          1

  RECEIVE TIME (IPS):     08/18/97 15:12:08
  RECEIVE TIME (ADAS):    08/18/97 15:12:08
  SIMULATOR ID:                  3
  MESSAGE TYPE:           MPS_ALARM
  MESSAGE SIZE:                 21
  GROUP ID:                      0
  MESSAGE TYPE: MPS Alarm
  RMS ID:                 0x01         LOGICAL UNIT ID:       0x29
  DELIMITER:              0x00         MESSAGE FUNCTION:      41
  DATE:                 08/18/97       TIME:                15:12:06
```

DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001) Decimal		

CR1

(01) Hex
( ) Ascii

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/18/97 15:13:07
RECEIVE TIME (ADAS): 08/18/97 15:13:07
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x29
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/18/97	TIME:	15:13:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		

CR2

(02) Hex
( ) Ascii

C.4.3.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IN-03.TCF".

TEST # **IN-03** TESTED BY: ____ Jock K. Stratton ____ DATE: 18/AUG/97 TIME: 15:06 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@ PC: Start data capture. **"cap_data [SP] IN-03 [RTN]"**	Procomm starts, opens the log file, then displays a ready message.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "IN-03" w/ RETRY set to "YES". @ISC: **"[F8] [F7] IN-03 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC: **"sa [SP] clean [RTN]"**	All datastores are removed. The ADAS is started.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS, report event log event type 1 entries, then acknowledge the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 1 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS ALARM to file. @ISC: **"[F7] [F8] [F7] IN-03 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **IN-03** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 15:06 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
12.	Output the IML: MPS RETURN TO NORMAL to file. @ISC: **"[F7] IN-03 <2:[RTN]> [SP] [RTN] M <3:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
13.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the LOG port's top socket to the PSF-PC port's socket.	**[X]** Pass [ ] Fail	Stop Test
14.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
15.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.4.4. TEST IN-04 - Channel Connection Test FST (WARP)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.4.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IN-04.)
b.	[XX]	[ ]	The retrieved ADAS Event Log must show that ADAS successfully detected the loss of connection CR1 with the WARP simulator and the subsequent re-connection CR2.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IN-04's Test Conduct Form (TCF) file, "IN-04.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-18-97 15:26:05
EVENT SEQ. NUMBER: 251     EVENT TYPE: 2        CSC ID: 4.01
Status of the WARP connection has changed.

  comm status: enabled-failed                                       CR1

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-18-97 15:26:36
EVENT SEQ. NUMBER: 260     EVENT TYPE: 2        CSC ID: 4.01
Status of the WARP connection has changed.

  comm status: enabled-active                                       CR2

INPUT MESSAGE #:            1

  RECEIVE TIME (IPS):       08/18/97 15:26:08
  RECEIVE TIME (ADAS):      08/18/97 15:26:08
  SIMULATOR ID:                    3
  MESSAGE TYPE:             MPS_ALARM
  MESSAGE SIZE:                   21
  GROUP ID:                        0
  MESSAGE TYPE: MPS Alarm
  RMS ID:                0x01        LOGICAL UNIT ID:        0x2a
  DELIMITER:             0x00        MESSAGE FUNCTION:       41
  DATE:              08/18/97        TIME:               15:26:05
  DATAPOINT ID:          0x01        CONDITION STATUS:       0x42
```

DATA TYPE: 0x01 RESOLUTION: 0x00 CR1
PARAMETER VALUE: (001) Decimal
(01) Hex
( ) Ascii

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/18/97 15:27:07
RECEIVE TIME (ADAS): 08/18/97 15:27:07
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2a
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/18/97	TIME:	15:27:04
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00

CR2

PARAMETER VALUE: (002) Decimal
(02) Hex
( ) Ascii

C.4.4.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IN-04.TCF".

TEST # **IN-04** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 15:20 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@ PC: Start data capture. "**cap_data [SP] IN-04 [RTN]**"	Procomm starts, opens the log file, then displays a ready message.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 51**"	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	"**isi**" @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "IN-04" w/ RETRY set to "YES". @ISC: "**[F8] [F7] IN-04 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC: "**sa [SP] clean [RTN]**"	All datastores are removed. The ADAS is started.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS, report event log event type 2 entries, then acknowledge the IPS prompt. @ISI: "{wait} <2:[F14]> **[F6] {wait} [F7]**" @ASC: "**si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 2 [RTN] {wait} <3:[F14]> [SP] [RTN]**" @ISC: "**[F7]**"	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: "**{wait} [F7] <2:[F14]>**" @AUC: "**stop_adas [RTN]**"	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS ALARM to file. @ISC: "**[F7] [F8] [F7] IN-04 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} <3:[F14]>**"	The output file is in directory '/tmp'. The ISI default screen is displayed. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **IN-04** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 15:20 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
12.	Output the IML: MPS RETURN TO NORMAL to file. @ISC: **"[F7] [F8] [F7] IN-04 <2:[RTN]> [SP] [RTN] M <3:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed. The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
13.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the LOG port's top socket to the PSF-PC port's socket.	**[X]** Pass [ ] Fail	Stop Test
14.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
15.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.4.5. TEST IN-05 - Channel Connection Test FST (WMSCR)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.5.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IN-05.)
b.	[XX]	[ ]	The retrieved ADAS Event Log must show that ADAS successfully detected the loss of connection CR1 with the WMSCR simulator and the subsequent re-connection CR2.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IN-05's Test Conduct Form (TCF) file, "IN-05.TCF".

```
EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-18-97 15:38:05
EVENT SEQ. NUMBER: 258     EVENT TYPE: 12        CSC ID: 5.01
Status of the WMSCR connection has changed.

  comm status: enabled-failed                                          CR1

EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-18-97 15:38:36
EVENT SEQ. NUMBER: 267     EVENT TYPE: 12        CSC ID: 5.01
Status of the WMSCR connection has changed.

  comm status: enabled-active                                          CR2

INPUT MESSAGE #:          1

  RECEIVE TIME (IPS):     08/18/97 15:38:08
  RECEIVE TIME (ADAS):    08/18/97 15:38:08
  SIMULATOR ID:                  3
  MESSAGE TYPE:           MPS_ALARM
  MESSAGE SIZE:                 21
  GROUP ID:                      0
  MESSAGE TYPE: MPS Alarm
  RMS ID:               0x01          LOGICAL UNIT ID:       0x2b
  DELIMITER:            0x00          MESSAGE FUNCTION:      41
  DATE:               08/18/97        TIME:               15:38:06
  DATAPOINT ID:         0x01          CONDITION STATUS:      0x42
```

DATA TYPE: 0x01 RESOLUTION: 0x00 CR1
PARAMETER VALUE: (001) Decimal
(01) Hex
( ) Ascii

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 08/18/97 15:39:08
RECEIVE TIME (ADAS): 08/18/97 15:39:08
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2b
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	08/18/97	TIME:	15:39:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002) Decimal		CR2
	(02) Hex		
	( ) Ascii		

C.4.5.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IN-05.TCF".

TEST # **IN-05** TESTED BY: ____ Jock K. Stratton ____ DATE: 18/AUG/97 TIME: 15:33 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter **'cap_itd IN-05'**	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "IN-05" w/ RETRY set to "YES". @ISC: **"[F8] [F7] IN-05 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC: **"sa [SP] clean [RTN]"**	All datastores are removed. The ADAS is started.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS, report event log event type 12 entries, then acknowledge the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 12 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS ALARM to file. @ISC: **"[F7] [F8] [F7] IN-05 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	Output the IML: MPS RETURN TO NORMAL to file.	The output file is in directory '/tmp'.	[X] Pass [ ] Fail	Stop Test

TEST # **IN-05** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 15:33 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: **"[F7] [F8] [F7] IN-05 <2:[RTN]> [SP] [RTN] M <3:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The ISI default screen is displayed. The Select Log Type screen is displayed.		
13.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the LOG port's top socket to the PSF-PC port's socket.	**[X]** Pass [ ] Fail	Stop Test
14.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
15.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.4.6. TEST IN-08 - CTS Processing

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.6.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IN-08.)
b.	[XX]	[ ]	The event generated by the ADAS adjustment to the CTS signal will record the CTS time standard, ADAS system time before the update, and the time stamp of the event will show the ADAS system time after the adjustment. Subtracting the indicated CTS time from the ADAS system time stamp will result in the deviation value which must be +/- one second or less on the average.

CR Reference	Difference
CR1	0
CR2	0
CR3	0
CR4	0
CR5	0
CR6	0
CR7	0
CR8	0
CR9	0
CR10	0
CR11	0
CR12	0
Total	0

Total _0_____ / 12 = Average _0______

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IN-08's Test Conduct Form (TCF) file, "IN-08.TCF".

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 17:16:15

EVENT SEQ. NUMBER: 45   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 17:16:13
new time: 08-18-97 17:16:15   CR1

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 18:05:14
EVENT SEQ. NUMBER: 251   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 17:17:16
new time: 08-18-97 18:05:14   CR2

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 18:08:14
EVENT SEQ. NUMBER: 258   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:06:13
new time: 08-18-97 18:08:14   CR3

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 18:11:11
EVENT SEQ. NUMBER: 265   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:09:12
new time: 08-18-97 18:11:11   CR4

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 18:14:12
EVENT SEQ. NUMBER: 272   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:12:11
new time: 08-18-97 18:14:12   CR5

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 18:17:10
EVENT SEQ. NUMBER: 279   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:15:11
new time: 08-18-97 18:17:10   CR6

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 18:20:12
EVENT SEQ. NUMBER: 286   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:18:12
new time: 08-18-97 18:20:12   CR7

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 18:23:11
EVENT SEQ. NUMBER: 293   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:21:12
new time: 08-18-97 18:23:11   CR8

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 18:26:13
EVENT SEQ. NUMBER: 300   EVENT TYPE: 9   CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:24:12
new time: 08-18-97 18:26:13 CR9

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-18-97 18:29:11
EVENT SEQ. NUMBER: 307 EVENT TYPE: 9 CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:27:12
new time: 08-18-97 18:29:11 CR10

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-18-97 18:32:13
EVENT SEQ. NUMBER: 314 EVENT TYPE: 9 CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:30:12
new time: 08-18-97 18:32:13 CR11

EVENT PRIORITY: non-critical DATE/TIME STAMP: 08-18-97 18:35:11
EVENT SEQ. NUMBER: 321 EVENT TYPE: 9 CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 08-18-97 18:33:12
new time: 08-18-97 18:35:11 CR12

C.4.6.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IN-08.TCF".

TEST # **IN-08** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 17:13 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter **'cap_itd IN-08'**	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "IN-08" w/ RETRY set to "YES". @ISC: **"[F8] [F7] IN-08 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC: **"sa [SP] clean [RTN]"**	All datastores are removed. The ADAS is started.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS, report event log event type 9 entries, then acknowledge the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 9 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the LOG port's top socket to the PSF-PC port's socket.	[X] Pass [ ] Fail	Stop Test
12.	Reset the IPS test time offset.	The IPS test time offset is reset to	[X] Pass [ ] Fail	Stop Test

TEST # **IN-08** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 17:13 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: "**[F8] [F10] [SP] [RTN]**"	zero.		
13.	Issue the command to shutdown the IPS. @ISC: "**[F10] [SP] [RTN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
14.	Reset the ADAS System Time @IUC 'aldars' prompt: "**setdate [RTN]**" @AUC 'adas' prompt: "**setdate MMDDhhmmYY [RTN]**"	The date/time MMDDhhmmYY code is output. The ADAS system time is reset.	**[X]** Pass [ ] Fail	Stop Test
15.	After the data is captured, close procomm. @PC: "**{wait} [Alt-F1] [Alt-X] [RTN]**"	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.4.7. TEST IN-09 - AWOS Originated Date/Time/Test Messages

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.7.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IN-09.)
b.	[XX]	[ ]	Each request, Test-CR1 Erroneous-CR2, and Date/Time-CR3, as logged in the IPS Outbound Message index, must produce the corresponding response message in the IPS Inbound Message log, CR4 CR5 & CR6 respectively
c.	[XX]	[ ]	The returned time/date response must indicate a time and date that was synchronized with the IPS test time as indicated by the IPS log records of the test and system times compared to the date/time response CR7.

Note that consideration must be given to transfer and IPS process time/boundaries. This will typically add one second.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IN-09's Test Conduct Form (TCF) file, "IN-09.TCF".

```
INPUT MESSAGE #:          1

  RECEIVE TIME (IPS):     08/18/97 17:40:14
  RECEIVE TIME (ADAS):    08/18/97 17:40:14
  SIMULATOR ID:                 12
  MESSAGE TYPE:           AWOS ERR MSG                                  CR5
  MESSAGE SIZE:                 16
  GROUP ID:                     -1
  MESSAGE TYPE: Adas Error Message
  FORMAT ID:             2        AWOS/ASOS CONFIG NO:   0
  FORMAT TYPE:           2        DATE:               97/08/18
  LENGTH INDICATOR:     14        TIME:               17:40:00
  AWOS/ASOS ID:       K001        ERROR POSITION:        0
  ERROR MESSAGE:

    1f 00
```

```
INPUT MESSAGE #:          1

  RECEIVE TIME (IPS):     08/18/97 17:39:42
  RECEIVE TIME (ADAS):    08/18/97 17:39:42                                  |CR7
  SIMULATOR ID:                 12
  MESSAGE TYPE:           AWOS DATE TM RESP                                  |CR6
  MESSAGE SIZE:                 15
  GROUP ID:                     -1
  MESSAGE TYPE: Date/Time Adu
  FORMAT ID:            0
  FORMAT TYPE:          9
  LENGTH INDICATOR:    13
  AWOS/ASOS ID:       K001
  AWOS/ASOS CONFIG NO:   0
  DATE:               08/18/97
  TIME:               17:39:42                                               |CR7
  OFFSET: UTC TO LOCAL TIME:     0

INPUT MESSAGE #:          1

  RECEIVE TIME (IPS):     08/18/97 17:39:12
  RECEIVE TIME (ADAS):    08/18/97 17:39:12
  SIMULATOR ID:                 12
  MESSAGE TYPE:           AWOS ADAS TEST MSG                                 |CR4
  MESSAGE SIZE:                 32
  GROUP ID:                     -1
  MESSAGE TYPE: ADAS Test Message Adu

  FORMAT ID:                  0
  FORMAT TYPE:                8
  LENGTH INDICATOR:          30
  ADAS ID:                 K001
  DATE:                 08/18/97
  TIME:                   17:39  AWOS S/W VERSION:      0
  RESERVED:

OUTPUT MESSAGE #:       1

  TRANSMIT TIME (IPS):  08/18/97 17:39:42
  TRANSMIT TIME (ADAS): 08/18/97 17:39:42
  TIME OFFSET:                0
  STATION ID:           12
  MESSAGE TYPE:         ADAS DATE TM REQ                                     |CR3
  FILE NAME:            aw_dtreq/std
  FIELD NUMBER:           0
FIELD VALUE:              FIELD OFFSET:              FIELD SIZE:
                      0                          1            0
                      0                          1            0
                      0                          1            0

OUTPUT MESSAGE #:       1

  TRANSMIT TIME (IPS):  08/18/97 17:39:11
  TRANSMIT TIME (ADAS): 08/18/97 17:39:11
  TIME OFFSET:                0
  STATION ID:           12
  MESSAGE TYPE:         ADAS TEST MSG REQ                                    |CR1
```

FILE NAME: aw_treq/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 2

TRANSMIT TIME (IPS): 08/18/97 17:40:12
TRANSMIT TIME (ADAS): 08/18/97 17:40:12
TIME OFFSET: 0
STATION ID: 12
MESSAGE TYPE: ADAS TEST MSG REQ CR2
FILE NAME: aw_treq/bogus
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

C.4.7.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IN-09.TCF".

TEST # **IN-09** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 17:35_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	**[X]** Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	**[X]** Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter **'cap_itd IN-09'**	Procomm starts with the log file open.	**[X]** Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	**[X]** Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	**[X]** Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts.	**[X]** Pass [ ] Fail	Stop Test
7.	Start test "IN-09" w/ RETRY set to "YES". @ISC: **"[F8] [F7] IN-09 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	**[X]** Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC: **"sa [SP] clean [RTN]"**	All datastores are removed. The ADAS is started.	**[X]** Pass [ ] Fail	Stop Test
9.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI indicates test started. The Event/Response Screen is displayed. The ISI indicates test termination. The AUC indicates the ADAS is DOWN.	**[X]** Pass [ ] Fail	Stop Test
10.	Output the OML: AWOS TEST REQUEST to file. @ISC: **"[F7] [F8] [F8] IN-09 <2:[RTN]> [SP] [RTN] <2:[DOWN]> <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
11.	Output OML: AWOS DATE/TIME REQUEST to file. @ISC: **"[F8] IN-09 <2:[RTN]> [SP] [RTN] <4:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The "Database Commands" screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
12.	Output the IML: ADAS TEST to file. @ISC: **"[F7] IN-09 <2:[RTN]> [SP] [RTN] AAA <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
13.	Output the IML: ADAS DATE/TIME to file.	The output file is in directory '/tmp'.	**[X]** Pass [ ] Fail	Stop Test

TEST # **IN-09** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 17:35_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: **"[F7] IN-09 <2:[RTN]> [SP] [RTN] AAAAA <2:[RTN]> {wait} [F14]"**	The Select Log Type screen is displayed.		
14.	Output the IML: AWOS ERROR to file. @ISC: **"[F7] IN-09 <2:[RTN]> [SP] [RTN] W <2:[UP]> [UP] <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
15.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the LOG port's top socket to the PSF-PC port's socket.	**[X]** Pass [ ] Fail	Stop Test
16.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
17.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.4.8. TEST IN-10 - ADAS Originated Date/Time/Test Msg.

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.8.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IN-10.)
b.	[XX]	[ ]	Each request must produce an Event message in the ADAS Event log, contained in the IPS Inbound Message log CR1-4 (Type 20).
c.	[XX]	[ ]	The ADAS Error log must contain the two errors returned by the AWOS simulators CR5&6.
d.	[XX]	[ ]	The ADAS Event log must contain the two Events for the errors returned by the AWOS simulators CR7&8 (Type 21).
e.	[XX]	[ ]	Successful completion of the manual procedures for this test case indicates the returned time/date response indicates a time and date that was synchronized with the IPS test time.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IN-10's Test Conduct Form (TCF) file, "IN-10.TCF".

```
EVENT PRIORITY: normal     DATE/TIME STAMP: 08-20-97 18:00:56
EVENT SEQ. NUMBER: 254     EVENT TYPE: 20      CSC ID: 14.01
ADAS specialist has issued a command request.

  specialist cmd: [TEST MESSAGE CMDS] - SEND AWOS TEST MSG             |CR1

EVENT PRIORITY: normal     DATE/TIME STAMP: 08-20-97 18:01:42
EVENT SEQ. NUMBER: 262     EVENT TYPE: 20      CSC ID: 14.01
ADAS specialist has issued a command request.

  specialist cmd: [TEST MESSAGE CMDS] - SEND AWOS TEST MSG             |CR2

EVENT PRIORITY: normal     DATE/TIME STAMP: 08-20-97 18:02:44
```

EVENT SEQ. NUMBER: 270   EVENT TYPE: 20   CSC ID: 14.01
ADAS specialist has issued a command request.

specialist cmd: [TEST MESSAGE CMDS] - SEND AWOS TEST MSG   CR3

EVENT PRIORITY: normal   DATE/TIME STAMP: 08-20-97 18:03:00
EVENT SEQ. NUMBER: 272   EVENT TYPE: 20   CSC ID: 14.01
ADAS specialist has issued a command request.

specialist cmd: [TEST MESSAGE CMDS] - SEND AWOS TEST MSG   CR4

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 18:02:46
EVENT SEQ. NUMBER: 271   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

interface id: K001 message type: ADAS received error message
error type: AWOS error message   error code: Date exception   CR7
original csc id: 3.02 error number: 1
error offset: 0

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-20-97 18:03:01
EVENT SEQ. NUMBER: 274   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

interface id: K002 message type: ADAS received error message
error type: AWOS error message   error code: Date exception   CR8
original csc id: 3.02 error number: 2
error offset: 64

EVENT NUMBER: 271   DATE/TIME STAMP: 08-20-97 18:02:46
ERROR SEQ. NUMBER: 1   CSC ID: 3.02
MESSAGE TYPE: 0
ERROR TYPE: 106   ERROR CODE: 103
ORIG. AWOS ID: K001

2420 4B30 3031 0000 6108 1412 020A 5858 5858 5858 5858 5858
5858 5858 5858 5858 5858   CR5

EVENT NUMBER: 274   DATE/TIME STAMP: 08-20-97 18:03:01
ERROR SEQ. NUMBER: 2   CSC ID: 3.02
MESSAGE TYPE: 0
ERROR TYPE: 106   ERROR CODE: 103
ORIG. AWOS ID: K002

2420 4B30 3032 0000 6108 1412 030A 5858 5858 5858 5858 5858
5858 5858 5858 5858 5858   CR6

C.4.8.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IN-10.TCF".

TEST # **IN-10** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 17:49 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter **'cap_itd IN-10'**	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	Login to the IPS Specialist Interface (ISI). @ISC 'login': **enter 'isi'**, then 'test12'	The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
7.	Start test "IN-10" w/ RETRY set to "YES". @ISC: **"[F8] [F7] IN-10 <13:[RTN]> [SP] <2:[RTN]>"**	IUC displays: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS clears the archive, log, & data files. The AUC first displays the date & time, then shortly thereafter, indicates it is OK to Login to the Initialization State.	[X] Pass [ ] Fail	Stop Test
9.	Wait until 1 minute after the ADAS reaches the operational state, then: **"si"** @ASC 'login': Login to SI. **"test12"**	The Specialist Interface Default screen will be displayed.	[X] Pass [ ] Fail	Stop Test
10.	Send a Test Message to AWOS station #1. @ASC: **"[F12] [F8] [Shft-K] 001 [RTN] {wait} [F14]"**	The response closes. The "Test Messages Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
11.	Dequeue the events, until an Event Type 6 is displayed. @ASC SI: **"[F6] [F8] {repeat}"**	A Non-Weather Message, Event Type 6, is displayed.	[X] Pass [ ] Fail	Stop Test
12.	Close the Event Window. @ASC SI: **"<3:[F14]>"**	The response closes. The "Test Messages Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **IN-10** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 17:49 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	Send a Date/Time Request Message to AWOS station #1, and record the ASC time. @ASC SI: **"[F12] [F9] [Shft-K] 001 [RTN] {wait} [F14]"**	The response window closes. The "Test Messages Commands" screen is displayed. The time is recorded.	Time Message Issued ____ 17:54:25 _____ **[X]** Pass [ ] Fail	Stop Test
14.	Dequeue the events, until an Event Type 6 is displayed. @ASC SI: **"[F6] [F8] {repeat}"**	A Non-Weather Message, Event Type 6, is displayed.	**[X]** Pass [ ] Fail	Stop Test
15.	Compare the Message time with the time recorded above.	The times will be within ± 2 seconds, plus the time taken to note the time on the display.	**[X]** Pass [ ] Fail	Stop Test
16.	Close the Event Window. @ASC SI: **"<2:[F14]>"**	The event window closes. The "Test Messages Commands" screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
17.	Send a Date/Time Request Message to AWOS station #1, and record the ASC time. @ASC SI: **"[F12] [F9] [Shft-K] 001 [RTN] {wait} [F14]"**	The response closes. The "Test Messages Commands" screen is displayed.	**[X]** Pass [ ] Fail ____ 17:55:46 ____	Stop Test
18.	Send a Date/Time Request Message to AWOS station #2, and record the ASC time. @ASC SI: **"[F12] [F9] [Shft-K] 002 [RTN] {wait} <3:[F14]>"**	The response closes. The SI default screen is displayed.	**[X]** Pass [ ] Fail ____ 17:56:01 ____	Stop Test
19.	When prompted by an IPS event, login to ADAS, report event log event types 6, 20, & 21 entries. @ISI: **"[F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11]** **<7:[RTN]> 6 [RTN] {wait} [F13] [F11]** **<7:[RTN]> 20 [RTN] {wait} [F13] [F11]** **<7:[RTN]> 21 [RTN] {wait}**	The event is displayed at the ISI. The PC captures the report output. The PC captures the report output. The PC captures the report output.	**[X]** Pass [ ] Fail	Stop Test
20.	Report the error log, logout of the SI, then acknowledge the IPS prompt. @ASC: **"[F13] [F11] [DOWN] <8:[RTN]> {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	**[X]** Pass [ ] Fail	Stop Test
21.	Acknowledge IPS Event, wait for the IPS Test to Terminate, then Shutdown ADAS. @ISC: **"[F6] [F7] {wait} [F7] [F14]"** @AUC: **"stop_adas [RTN]"**	The AUC indicates a graceful shutdown was requested, ASC displays a 'login' prompt, AUC indicates ADAS is DOWN.	**[X]** Pass [ ] Fail	Stop Test
22.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for	A cable patches the LOG port's top socket to the PSF-PC port's socket.	**[X]** Pass [ ] Fail	Stop Test

TEST # **IN-10** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 17:49 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	data capture.			
23.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
24.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.4.9 TEST IN-12D - NADIN USERS(DLP, WARP, WMSCR, AND ITWSs) Interface

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.9.1 Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[xx]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[pp]	[ ]	*ADAS shall disseminate data to the ITWS via the NADIN Port.* CR01 NAS-SS-1000, Section 4.4.1.4, Vol II Figure 3.2.1.5.8.3-F1 ISS2-004
c.	[xx]	[ ]	*NLDN to ADAS (216 bits and 667 times/minute).* CR02 NAS-SS-1000, Vol. II Table 3.2.1.5.8.3-T1k LSS2-024
d.	[xx]	[ ]	*NLDN to ADAS (1200 baud rate, RS-232, asynchronous).* CR03 NAS-SS-1000, Vol. II Table 3.2.1.5.8.3-T1k LSS2-024
e.	[pp]	[ ]	*ADAS shall disseminate data to the DLP via the NADIN Port.*
f.	[pp]	[ ]	*ADAS shall disseminate data to the WARP via the NADIN Port.*
g.	[xx]	[ ]	*ADAS shall disseminate data to the WMSCR via the NADIN Port.*

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into test IN-12D's Test Conduct Form (TCF) file, "IN-12D.TCF".

DATA EXTRACTED FROM IPS FILE:

ITWS and NLDN: CR01 and CR02

NLDN LDD OUTPUT MESSAGE/ITWS1 LDD INPUT MESSAGE:

10/06/97 14:59:16 FLASHMESSAGE
7d96 b2ee 3a32 c27e

10/06/97 14:59:16 FLASHMESSAGE
7d96 d0ee 3a32 ef76 6d3b 2248 0277 6d3b 2248 2977 6d3b 2248 db76 6d3b

```
  2248 1677 6d3b 2248 3d77 6d3b 2248 5177 6d3b 2248 7877 6d3b 2248 9f77 6d3b
2248
  3d77 6d3b 2248 6477 6d3b 2248 8c77 6d3b 2248 b377 6d3b 2248 0178 6d3b 2248
5078
  6d3b 2248 9f78 6d3b 2248 c777 6d3b 2248 2978 6d3b 2248 0179 6d3b 2248 2879
6d3b
  2248 4d7e

10/06/97 14:59:16 FLASHMESSAGE
  7d96 d0ee 3a32 a07e
.....................

...................

INPUT MESSAGE #:          23

  RECEIVE TIME (IPS):     10/06/97 14:59:21
  RECEIVE TIME (ADAS):    10/06/97 18:59:21
  SIMULATOR ID:                  6
  MESSAGE TYPE:           ITWS1_LDD_MSG
  MESSAGE SIZE:                182
  GROUP ID:                     25
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              27
  SITE ID:               KACY
  DAY/HOUR/MINUTE:       06/18/59
  Number of Messages      3
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :04
DATE/TIME FIELD     :b2 ee 3a 32


LENGTH INDICATOR    :7c
DATE/TIME FIELD     :d0 ee 3a 32
FLASH RECORD #01    :ef 76 6d 3b 22 48
FLASH RECORD #02    :02 77 6d 3b 22 48
FLASH RECORD #03    :29 77 6d 3b 22 48
FLASH RECORD #04    :db 76 6d 3b 22 48
FLASH RECORD #05    :16 77 6d 3b 22 48
FLASH RECORD #06    :3d 77 6d 3b 22 48
FLASH RECORD #07    :51 77 6d 3b 22 48
FLASH RECORD #08    :78 77 6d 3b 22 48
FLASH RECORD #09    :9f 77 6d 3b 22 48
FLASH RECORD #10    :3d 77 6d 3b 22 48
FLASH RECORD #11    :64 77 6d 3b 22 48
FLASH RECORD #12    :8c 77 6d 3b 22 48
FLASH RECORD #13    :b3 77 6d 3b 22 48
FLASH RECORD #14    :01 78 6d 3b 22 48
FLASH RECORD #15    :50 78 6d 3b 22 48
FLASH RECORD #16    :9f 78 6d 3b 22 48
FLASH RECORD #17    :c7 77 6d 3b 22 48
FLASH RECORD #18    :29 78 6d 3b 22 48
FLASH RECORD #19    :01 79 6d 3b 22 48
FLASH RECORD #20    :28 79 6d 3b 22 48
```

```
LENGTH INDICATOR    :04
DATE/TIME FIELD     :d0 ee 3a 32
No more messages in this ADU

.......................
```

ITWS:

ADAS AWOS OUTPUT MESSAGE/ITWS1 AWOS INPUT MESSAGE:

```
.........................

OUTPUT MESSAGE #:      57

  TRANSMIT TIME (IPS):   10/06/97 15:00:02
  TRANSMIT TIME (ADAS):  10/06/97 19:00:02
  TIME OFFSET:                 0
  STATION ID:             12
  MESSAGE TYPE:          ADAS_AWOS_MSG
  FILE NAME:             aw_msg/std
  FIELD NUMBER:            0
FIELD VALUE:               FIELD OFFSET:          FIELD SIZE:
                         0                          1               0
                         0                          1               0
                         0                          1               0

........................

DR of IN-12DB.I1AW for messages/site count.
.......................

## New ADU ## INPUT MESSAGE #: 4
ADU#: 4 | (IPS): 10/06/97 15:00:12 - (ADAS): 10/06/97 19:00:12 | msgs 15
Hdr: Sim-6 | ADU size: 1214 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x0f
 K006 K011 K010 K002 K003 K005 K012 K004 K009 K007 K001 K008 K015 K013 K014

.........................
```

DLP:

ADAS AWOS OUTPUT MESSAGE/DLP AWOS INPUT MESSAGE:

```
.........................

OUTPUT MESSAGE #:      57

  TRANSMIT TIME (IPS):   10/06/97 15:00:02
  TRANSMIT TIME (ADAS):  10/06/97 19:00:02
  TIME OFFSET:                 0
  STATION ID:             12
  MESSAGE TYPE:          ADAS_AWOS_MSG
  FILE NAME:             aw_msg/std
  FIELD NUMBER:            0
FIELD VALUE:               FIELD OFFSET:          FIELD SIZE:
                         0                          1               0
                         0                          1               0
                         0                          1               0
```

....

DR of IN-12DB.DLPA for messages/site count.

....

New ADU ## INPUT MESSAGE #: 4
ADU#: 4 | (IPS): 10/06/97 15:00:07 - (ADAS): 10/06/97 19:00:07 | msgs 15
Hdr: Sim-2 | ADU size: 1169 | Type: DLP Awos | OMO's = 15
K006 K011 K010 K002 K003 K005 K012 K004 K009 K007 K001 K008 K015 K013 K014

....

RWP(WARP):

ADAS AWOS OUTPUT MESSAGE/RWP(WARP) AWOS INPUT MESSAGE:

....

OUTPUT MESSAGE #: 57

TRANSMIT TIME (IPS): 10/06/97 15:00:02
TRANSMIT TIME (ADAS): 10/06/97 19:00:02
TIME OFFSET: 0
STATION ID: 12
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:	
	0	1	0
	0	1	0
	0	1	0

....

DR of IN-12DB.RWPA for messages/site count.

....

New ADU ## INPUT MESSAGE #: 4
ADU#: 4 | (IPS): 10/06/97 15:00:07 - (ADAS): 10/06/97 19:00:07 | msgs 15
Hdr: Sim-4 | ADU size: 1169 | Type: RWP Awos | OMO's = 15
K006 K011 K010 K002 K003 K005 K012 K004 K009 K007 K001 K008 K015 K013 K014

....

WMSCR:

ADAS AWOS OUTPUT MESSAGE/WMSCR METAR INPUT MESSAGE

....

OUTPUT MESSAGE #: 57

TRANSMIT TIME (IPS): 10/06/97 15:00:02
TRANSMIT TIME (ADAS): 10/06/97 19:00:02
TIME OFFSET: 0
STATION ID: 12
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE: FIELD OFFSET: FIELD SIZE:

0	1	0
0	1	0
0	1	0

....

....

INPUT MESSAGE #: 6

RECEIVE TIME (IPS): 10/06/97 15:00:07
RECEIVE TIME (ADAS): 10/06/97 19:00:07
SIMULATOR ID: 5
MESSAGE TYPE: WMSCR_METAR_ME
MESSAGE SIZE: 675
GROUP ID: 12
MESSAGE TYPE: WMSCR METAR Message
HEADER: 0xe8
RESERVED:
TYPE: SA
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 06/19/00
DATA:

METAR K005 061900 AUTO 00000KT 1 3/4SM R01C/P6000FT CLR 26/20
METAR K012 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K002 061900Z AUTO 04005G15KT 7SM R01/3000FT FC 22/06 A2998 RMK TORNADO A02 FCB00 SLP000
METAR K015 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K013 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K014 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K001 061900Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK A02 SLP000
TOTAL messages 7
No more messages in this ADU

....

WMSCR:

ADAS METAR OUTPUT MESSAGE/WMSCR METAR INPUT MESSAGE

....

OUTPUT MESSAGE #: 19

TRANSMIT TIME (IPS): 10/06/97 15:00:00
TRANSMIT TIME (ADAS): 10/06/97 19:00:00
TIME OFFSET: 0
STATION ID: 17
MESSAGE TYPE: ADAS METAR MSG
FILE NAME: aw_metar/spec_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

....

....

INPUT MESSAGE #: 5

RECEIVE TIME (IPS): 10/06/97 15:00:07
RECEIVE TIME (ADAS): 10/06/97 19:00:07
SIMULATOR ID: 5
MESSAGE TYPE: WMSCR METAR ME
MESSAGE SIZE: 107
GROUP ID: 11
MESSAGE TYPE: WMSCR METAR Message
HEADER: 0xe8
RESERVED:
TYPE: SA
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 06/19/00
DATA:

SPECI K006 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01C/P6000FT CLR 26/20

TOTAL messages 1
No more messages in this ADU

....

WMSCR

ADAS AWOS OUTPUT MESSAGE/WMSCR METAR INPUT MESSAGE

....

OUTPUT MESSAGE #: 64

TRANSMIT TIME (IPS): 10/06/97 15:00:58
TRANSMIT TIME (ADAS): 10/06/97 19:00:58
TIME OFFSET: 0
STATION ID: 13
MESSAGE TYPE: ADAS AWOS MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 1

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	14	1
0	1	0
0	1	0

....
....

INPUT MESSAGE #: 7

RECEIVE TIME (IPS): 10/06/97 15:01:04
RECEIVE TIME (ADAS): 10/06/97 19:01:04
SIMULATOR ID: 5
MESSAGE TYPE: WMSCR METAR ME
MESSAGE SIZE: 204
GROUP ID: 16

MESSAGE TYPE: WMSCR METAR Message
HEADER: 0xe8
RESERVED:
TYPE: SA
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 06/19/01
DATA:

SPECI K002 061901Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK A02 FCE01 SLP000

SPECI K006 061901Z AUTO 2101G24KT 180V240 1 3/4SM R01C/P6000FT CLR 26/20

TOTAL messages 2
No more messages in this ADU

....

WMSCR

ADAS SUMMARY OUTPUT MESSAGE/WMSCR SUMMARY INPUT MESSAGE

....

OUTPUT MESSAGE #: 10

TRANSMIT TIME (IPS): 10/06/97 15:00:02
TRANSMIT TIME (ADAS): 10/06/97 19:00:02
TIME OFFSET: 0
STATION ID: 20
MESSAGE TYPE: ADAS SUMMARY MSG
FILE NAME: aw_summ/month_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:	
0		1	0
0		1	0
0		1	0

OUTPUT MESSAGE #: 11

TRANSMIT TIME (IPS): 10/06/97 15:00:02
TRANSMIT TIME (ADAS): 10/06/97 19:00:02
TIME OFFSET: 0
STATION ID: 18
MESSAGE TYPE: ADAS SUMMARY MSG
FILE NAME: aw_summ/dly1_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:	
0		1	0
0		1	0
0		1	0

OUTPUT MESSAGE #: 12

TRANSMIT TIME (IPS): 10/06/97 15:00:02
TRANSMIT TIME (ADAS): 10/06/97 19:00:02

```
  TIME OFFSET:              0
  STATION ID:              19
  MESSAGE TYPE:            ADAS SUMMARY MSG
  FILE NAME:               aw_summ/dly2_std
  FIELD NUMBER:             0
FIELD VALUE:                FIELD OFFSET:             FIELD SIZE:
                           0                          1               0
                           0                          1               0
                           0                          1               0
```

....

....

```
INPUT MESSAGE #:         5

  RECEIVE TIME (IPS):     10/06/97 15:00:07
  RECEIVE TIME (ADAS):    10/06/97 19:00:07
  SIMULATOR ID:                5
  MESSAGE TYPE:           WMSCR_SUMM_MSG
  MESSAGE SIZE:               156
  GROUP ID:                    14
  MESSAGE TYPE: WMSCR SUMMARY Message
  HEADER:                0xe8
  RESERVED:
  TYPE:                  CD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              27
  SITE ID:               KACY
  DAY/HOUR/MINUTE:       06/19/00
  DATA:

K007----06-10------------:Primary Daily Summary Message:
K008----1900-06-10-------:Intermediate Daily Summary Message:

TOTAL messages 2
No more messages in this ADU

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
-
INPUT MESSAGE #:         6

  RECEIVE TIME (IPS):     10/06/97 15:00:07
  RECEIVE TIME (ADAS):    10/06/97 19:00:07
  SIMULATOR ID:                5
  MESSAGE TYPE:           WMSCR SUMM MSG
  MESSAGE SIZE:               85
  GROUP ID:                   15
  MESSAGE TYPE: WMSCR SUMMARY Message
  HEADER:                0xe8
  RESERVED:
  TYPE:                  CS
  GEOGRAPHIC DESIG:      US
  BULLETIN:              27
  SITE ID:               KACY
  DAY/HOUR/MINUTE:       06/19/00
  DATA:
```

K009----10---------------:Monthly Summary Message:

TOTAL messages 1
No more messages in this ADU

....

WMSCR

ADAS METAR OUTPUT MESSAGE/WMSCR METAR INPUT MESSAGE

....

OUTPUT MESSAGE #: 21

TRANSMIT TIME (IPS): 10/06/97 15:00:02
TRANSMIT TIME (ADAS): 10/06/97 19:00:02
TIME OFFSET: 0
STATION ID: 16
MESSAGE TYPE: ADAS METAR MSG
FILE NAME: aw_metar/met_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:	
	0	1	0
	0	1	0
	0	1	0

....

....

INPUT MESSAGE #: 6

RECEIVE TIME (IPS): 10/06/97 15:00:07
RECEIVE TIME (ADAS): 10/06/97 19:00:07
SIMULATOR ID: 5
MESSAGE TYPE: WMSCR METAR ME
MESSAGE SIZE: 675
GROUP ID: 12
MESSAGE TYPE: WMSCR METAR Message
HEADER: 0xe8
RESERVED:
TYPE: SA
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 06/19/00
DATA:

METAR K005 061900 AUTO 00000KT 1 3/4SM R01C/P6000FT CLR 26/20
METAR K012 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K002 061900Z AUTO 04005G15KT 7SM R01/3000FT FC 22/06 A2998 RMK TORNADO A02 FCB00 SLP000
METAR K015 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000

```
METAR K013 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998
RMK A02 SLP000
METAR K014 061900Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998
RMK A02 SLP000
METAR K001 061900Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK A02 SLP000

TOTAL messages 7
No more messages in this ADU
```

....

WMSCR

ADAS SHEF OUTPUT MESSAGE/WMSCR SHEF INPUT MESSAGE

....

```
OUTPUT MESSAGE #:       7

  TRANSMIT TIME (IPS):   10/06/97 15:00:00
  TRANSMIT TIME (ADAS):  10/06/97 19:00:00
  TIME OFFSET:                 0
  STATION ID:             22
  MESSAGE TYPE:           ADAS SHEF MSG
  FILE NAME:              aw_shef/shef2_std
  FIELD NUMBER:            0
FIELD VALUE:                FIELD OFFSET:          FIELD SIZE:
                        0                          1              0
                        0                          1              0
                        0                          1              0

OUTPUT MESSAGE #:       8

  TRANSMIT TIME (IPS):   10/06/97 15:00:00
  TRANSMIT TIME (ADAS):  10/06/97 19:00:00
  TIME OFFSET:                 0
  STATION ID:             21
  MESSAGE TYPE:           ADAS SHEF MSG
  FILE NAME:              aw_shef/shef1_std
  FIELD NUMBER:            0
FIELD VALUE:                FIELD OFFSET:          FIELD SIZE:
                        0                          1              0
                        0                          1              0
                        0                          1              0
```

....

....

```
INPUT MESSAGE #:          4

  RECEIVE TIME (IPS):      10/06/97 15:00:07
  RECEIVE TIME (ADAS):     10/06/97 19:00:07
  SIMULATOR ID:                  5
  MESSAGE TYPE:            WMSCR SHEF MSG
  MESSAGE SIZE:                140
  GROUP ID:                     13
  MESSAGE TYPE: WMSCR SHEF Message
```

HEADER: 0xe8
RESERVED:
TYPE: SR
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 06/19/00
DATA:

-----K011-1006---1900----:SHEF 15-minute Precip:
-----K010-1006---1900----:SHEF Hourly Routine Precip:

TOTAL messages 2
No more messages in this ADU

....

WMSCR

WMSCR METAR INPUT MESSAGE

....

INPUT MESSAGE #: 11

RECEIVE TIME (IPS): 10/06/97 15:04:17
RECEIVE TIME (ADAS): 10/06/97 20:01:17
SIMULATOR ID: 5
MESSAGE TYPE: WMSCR_METAR_ME
MESSAGE SIZE: 218
GROUP ID: 5
MESSAGE TYPE: WMSCR METAR Message
HEADER: 0xe8
RESERVED:
TYPE: SA
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 06/20/01
DATA:

SPECI K002 061902Z AUTO 04005G15KT 7SM R01/3000FT FC 22/06 A2998 RMK TORNADO A02 FCE01B02 SLP000
SPECI K006 061901Z AUTO 2101G24KT 180V240 1 3/4SM R01C/P6000FT CLR 26/20

TOTAL messages 2
No more messages in this ADU

- -

INPUT MESSAGE #: 12

RECEIVE TIME (IPS): 10/06/97 15:04:21
RECEIVE TIME (ADAS): 10/06/97 20:01:21
SIMULATOR ID: 5
MESSAGE TYPE: WMSCR_METAR_ME
MESSAGE SIZE: 1465
GROUP ID: 6

MESSAGE TYPE: WMSCR METAR Message
HEADER: 0xe8
RESERVED:
TYPE: SA
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 06/20/01
DATA:

METAR K013 062001Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K015 062001Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K012 062001Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K005 062001 AUTO 00000KT 1 3/4SM R01C/P6000FT CLR 26/20
METAR K001 062000Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK A02 SLP000
METAR K002 062000Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK A02 FCE01B02E00 SLP000

METAR K014 062000Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K013 062000Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K015 062000Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K005 062000 AUTO 00000KT 1 3/4SM R01C/P6000FT CLR 26/20
METAR K012 062000Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K014 061902Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K013 061902Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K015 061902Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000
METAR K005 061901 AUTO 00000KT 1 3/4SM R01C/P6000FT CLR 26/20
METAR K012 061901Z AUTO 2101G24KT 180V240 1 3/4SM R01/3000FT CLR 26/20 A2998 RMK A02 SLP000

TOTAL messages 16
No more messages in this ADU

....

DATA EXTRACTED FROM ADAS FILE:

CWM ERR.LOG (Represents data sent out by ADAS)

....

Oct 6 19:00:07 1997 5.01 do_iso_evt() - ISO_ADU_SENT message received
Oct 6 19:00:07 1997 5.01 wmo confirmed transmittal SPECI confirm id=>12 #=>1

Oct 6 19:00:08 1997 5.01 wmo confirmed transmittal METAR confirm id=>13 #=>7

Oct 6 19:00:08 1997 5.01 wmo confirmed transmittal SHEF confirm id=>14 #=>2

Oct 6 19:00:09 1997 5.01 wmo confirmed transmittal DAILY SUMMARY confirm id=>15 #=>2

Oct 6 19:00:09 1997 5.01 wmo confirmed transmittal MONTHLY SUMMARY confirm id=>16 #=>1

Oct 6 19:01:07 1997 5.01 wmo confirmed transmittal SPECI confirm id=>17 #=>2
Oct 6 19:01:07 1997 5.01 wmo_confirmed_transmittal METAR confirm_id=>18 #=>5
Oct 6 19:01:07 1997 5.01 wmo_confirmed_transmittal SHEF confirm_id=>19 #=>2
Oct 6 19:01:07 1997 5.01 wmo_confirmed_transmittal DAILY_SUMMARY confirm_id=>20 #=>2
Oct 6 19:01:07 1997 5.01 wmo_confirmed_transmittal MONTHLY SUMMARY confirm_id=>21 #=>1
....

CHD ERR.LOG (Represents data received by ADAS)

....

Oct 6 19:00:02 1997 3.02 ADU_proc() site =>K011 format_id =>0, format_type =>11
Oct 6 19:00:02 1997 3.02 ADU proc() site =>K006 format id =>0, format type =>6
Oct 6 19:00:02 1997 3.02 ADU proc() site =>K010 format id =>0, format type =>10
Oct 6 19:00:02 1997 3.02 ADU_proc() site =>K006 format_id =>0, format_type =>1
Oct 6 19:00:02 1997 3.02 ADU proc() site =>K011 format id =>0, format type =>1
Oct 6 19:00:03 1997 3.02 ADU_proc() site =>K010 format_id =>0, format_type =>1
Oct 6 19:00:04 1997 3.02 ADU_proc() site =>K002 format_id =>0, format_type =>1
Oct 6 19:00:04 1997 3.02 ADU proc() site =>K005 format id =>0, format type =>5
Oct 6 19:00:04 1997 3.02 ADU_proc() site =>K012 format_id =>0, format_type =>5
Oct 6 19:00:04 1997 3.02 ADU proc() site =>K007 format id =>0, format type =>12
Oct 6 19:00:04 1997 3.02 ADU proc() site =>K009 format id =>0, format type =>14
Oct 6 19:00:04 1997 3.02 ADU_proc() site =>K003 format_id =>0, format_type =>2
Oct 6 19:00:04 1997 3.02 ADU proc() site =>K008 format id =>0, format type =>13
Oct 6 19:00:04 1997 3.02 ADU_proc() site =>K015 format_id =>0, format_type =>5
Oct 6 19:00:04 1997 3.02 ADU_proc() site =>K005 format_id =>0, format_type =>1
Oct 6 19:00:04 1997 3.02 ADU_proc() site =>K012 format_id =>0, format_type =>1
Oct 6 19:00:05 1997 3.02 ADU_proc() site =>K004 format_id =>0, format_type =>2
Oct 6 19:00:05 1997 3.02 ADU_proc() site =>K013 format_id =>0, format_type =>5

```
Oct  6 19:00:05 1997 3.02 ADU_proc() site =>K009 format_id =>0, format_type
=>1
Oct  6 19:00:05 1997 3.02 ADU_proc() site =>K007 format_id =>0, format_type
=>1
Oct  6 19:00:05 1997 3.02 ADU_proc() site =>K001 format_id =>0, format_type
=>1
Oct  6 19:00:05 1997 3.02 ADU_proc() site =>K014 format_id =>0, format_type
=>5
Oct  6 19:00:05 1997 3.02 ADU_proc() site =>K008 format_id =>0, format_type
=>1
Oct  6 19:00:05 1997 3.02 ADU_proc() site =>K015 format_id =>0, format_type
=>1
Oct  6 19:00:06 1997 3.02 ADU_proc() site =>K013 format_id =>0, format_type
=>1
Oct  6 19:00:06 1997 3.02 ADU_proc() site =>K014 format_id =>0, format_type
=>1

Oct  6 19:01:01 1997 3.02 ADU_proc() site =>K009 format_id =>0, format_type
=>14
Oct  6 19:01:01 1997 3.02 ADU_proc() site =>K009 format_id =>0, format_type
=>1
Oct  6 19:01:02 1997 3.02 ADU_proc() site =>K002 format_id =>0, format_type
=>1
Oct  6 19:01:02 1997 3.02 ADU_proc() site =>K012 format_id =>0, format_type
=>5
Oct  6 19:01:02 1997 3.02 ADU_proc() site =>K005 format_id =>0, format_type
=>5
Oct  6 19:01:02 1997 3.02 ADU_proc() site =>K003 format_id =>0, format_type
=>1
Oct  6 19:01:02 1997 3.02 ADU_proc() site =>K007 format_id =>0, format_type
=>12
Oct  6 19:01:02 1997 3.02 ADU_proc() site =>K012 format_id =>0, format_type
=>1
.................
```

COMMUNICATION CHARACTERISTICS:

```
..............................................................................
..
.  10-06-97   18:58:34   . Events:     0 . Responses:     0 .    DATAPOINT CMDS
.
..............................................................................
..
                     DISPLAY NLDN COMMUNICATIONS LU DATAPOINTS
                                              ALERT      ALARM
   DATAPOINT NAME          ID    VALUE      CURR PAST  CURR PAST    LAST RESET

  CONNECTION STATUS:       01  CFG-ACTIVE                           10-06-97
14:56:45
  NLDN FAILURES TOTAL:     02            7                          10-06-97
14:56:45
  ERROR DETECTED:          03            0                          10-06-97
14:56:45
  ERROR DETECTED TOTAL:    04            0                          10-06-97
14:56:45


             ALERT THRESHOLDS                     ALARM THRESHOLDS
```

UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

....
..
. 10-06-97 18:58:48 . Events: 0 . Responses: 0 . DATAPOINT CMDS
.
....
..

DISPLAY DLP COMMUNICATIONS LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
AWOS MESSAGES SENT:	02	30					10-06-97 14:56:45
ADU DATA TRANSFERS:	03	2					10-06-97 14:56:45
DLP REJECTED MSGS:	04	0					10-06-97 14:56:45

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

....
..
. 10-06-97 18:58:58 . Events: 0 . Responses: 0 . DATAPOINT CMDS
.
....
..

DISPLAY WARP COMMUNICATIONS LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
AWOS MESSAGES SENT:	02	30					10-06-97 14:56:45
ADU DATA TRANSFERS:	03	2					10-06-97 14:56:45
WARP REJECTED MSGS:	04	0					10-06-97 14:56:45

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

....
..
. 10-06-97 18:59:10 . Events: 0 . Responses: 0 . DATAPOINT CMDS
.
....
..

DISPLAY WMSCR COMMUNICATIONS LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
METAR MESSAGES SENT:	02	12					10-06-97 14:56:45
ADU DATA TRANSFERS:	03	6					10-06-97 14:56:45
SHEF MESSAGES SENT:	04	4					10-06-97 14:56:45
SHEF MSG DISCARDS:	05	0					10-06-97 14:56:45

ALERT THRESHOLDS UPPER	LOWER	ENAB	ALARM THRESHOLDS UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS1

....

. 10-06-97 18:59:36 . Events: 0 . Responses: 0 . DATAPOINT CMDS .

....

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
AWOS MESSAGES SENT:	02	45					10-06-97 14:56:45
AWOS ADU MSGS SENT:	03	3					10-06-97 14:56:45
LDD MESSAGES SENT:	04	100					10-06-97 14:56:45
LDD ADU SENT:	05	23					10-06-97 14:56:45

ALERT THRESHOLDS UPPER	LOWER	ENAB	ALARM THRESHOLDS UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS2

....

. 10-06-97 18:59:50 . Events: 0 . Responses: 0 . DATAPOINT CMDS .

....

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET

CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
AWOS MESSAGES SENT:	02	45					10-06-97 14:56:45
AWOS ADU MSGS SENT:	03	3					10-06-97 14:56:45
LDD MESSAGES SENT:	04	100					10-06-97 14:56:45
LDD ADU SENT:	05	23					10-06-97 14:56:45

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS3

. 10-06-97 19:00:04 . Events: 0 . Responses: 0 . DATAPOINT CMDS

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
AWOS MESSAGES SENT:	02	45					10-06-97 14:56:45
AWOS ADU MSGS SENT:	03	3					10-06-97 14:56:45
LDD MESSAGES SENT:	04	100					10-06-97 14:56:45
LDD ADU SENT:	05	23					10-06-97 14:56:45

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS4

. 10-06-97 19:00:21 . Events: 0 . Responses: 0 . DATAPOINT CMDS

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
AWOS MESSAGES SENT:	02	45					10-06-97 14:56:45

AWOS ADU MSGS SENT:	03	3					10-06-97 14:56:45
LDD MESSAGES SENT:	04	112					10-06-97 14:56:45
LDD ADU SENT:	05	28					10-06-97 14:56:45

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS5

....

. 10-06-97 19:00:36 . Events: 1 . Responses: 0 . DATAPOINT CMDS

....

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
AWOS MESSAGES SENT:	02	45					10-06-97 14:56:45
AWOS ADU MSGS SENT:	03	3					10-06-97 14:56:45
LDD MESSAGES SENT:	04	112					10-06-97 14:56:45
LDD ADU SENT:	05	28					10-06-97 14:56:45

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS6

....

. 10-06-97 19:00:49 . Events: 1 . Responses: 0 . DATAPOINT CMDS

....

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					10-06-97 14:56:45
AWOS MESSAGES SENT:	02	45					10-06-97 14:56:45
AWOS ADU MSGS SENT:	03	3					10-06-97 14:56:45
LDD MESSAGES SENT:	04	112					10-06-97 14:56:45

LDD ADU SENT: 05 28 10-06-97
14:56:45

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ADAS EVENTS LOG

EVENT PRIORITY: non-critical DATE/TIME STAMP: 10-06-97 14:55:11
EVENT SEQ. NUMBER: 43 EVENT TYPE: 1 CSC ID: 4.05
Status of the DLP connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 10-06-97 14:56:24
EVENT SEQ. NUMBER: 58 EVENT TYPE: 1 CSC ID: 4.05
Status of the DLP connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 10-06-97 20:03:08
EVENT SEQ. NUMBER: 582 EVENT TYPE: 1 CSC ID: 4.05
Status of the DLP connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 10-06-97 14:55:11
EVENT SEQ. NUMBER: 42 EVENT TYPE: 2 CSC ID: 4.01
Status of the WARP connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 10-06-97 14:56:23
EVENT SEQ. NUMBER: 56 EVENT TYPE: 2 CSC ID: 4.01
Status of the WARP connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 10-06-97 20:03:04
EVENT SEQ. NUMBER: 579 EVENT TYPE: 2 CSC ID: 4.01
Status of the WARP connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 10-06-97 14:55:08
EVENT SEQ. NUMBER: 41 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 10-06-97 14:56:21
EVENT SEQ. NUMBER: 55 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 19:01:55
EVENT SEQ. NUMBER: 525   EVENT TYPE: 12   CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:01:05
EVENT SEQ. NUMBER: 543   EVENT TYPE: 12   CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:55
EVENT SEQ. NUMBER: 574   EVENT TYPE: 12   CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:55:29
EVENT SEQ. NUMBER: 44   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:55:29
EVENT SEQ. NUMBER: 45   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:55:29
EVENT SEQ. NUMBER: 46   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:55:29
EVENT SEQ. NUMBER: 47   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:55:30
EVENT SEQ. NUMBER: 48   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:55:33

EVENT SEQ. NUMBER: 49   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:56:24
EVENT SEQ. NUMBER: 57   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:56:25
EVENT SEQ. NUMBER: 59   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:56:27
EVENT SEQ. NUMBER: 60   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:56:28
EVENT SEQ. NUMBER: 61   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:56:31
EVENT SEQ. NUMBER: 64   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:56:35
EVENT SEQ. NUMBER: 67   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:57
EVENT SEQ. NUMBER: 575   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:03:06
EVENT SEQ. NUMBER: 581   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:03:10
EVENT SEQ. NUMBER: 583   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:03:13
EVENT SEQ. NUMBER: 584   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:03:17
EVENT SEQ. NUMBER: 585   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:03:20
EVENT SEQ. NUMBER: 586   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:56:48
EVENT SEQ. NUMBER: 73   EVENT TYPE: 62   CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:57:50
EVENT SEQ. NUMBER: 484   EVENT TYPE: 62   CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 14:58:02
EVENT SEQ. NUMBER: 486   EVENT TYPE: 62   CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:03:02
EVENT SEQ. NUMBER: 578   EVENT TYPE: 62   CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:49
EVENT SEQ. NUMBER: 559   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K010 controller: 1
channel: 3
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:50
EVENT SEQ. NUMBER: 560   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K015 controller: 2
channel: 1
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:50
EVENT SEQ. NUMBER: 561   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K012 controller: 1
channel: 3
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:50
EVENT SEQ. NUMBER: 562   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K013 controller: 2
channel: 1
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:50
EVENT SEQ. NUMBER: 563   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K009 controller: 1
channel: 3
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:50
EVENT SEQ. NUMBER: 564   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K002 controller: 1
channel: 1
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:50
EVENT SEQ. NUMBER: 565   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K014 controller: 2
channel: 1
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:50
EVENT SEQ. NUMBER: 566   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K003 controller: 1
channel: 1
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:51
EVENT SEQ. NUMBER: 567   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K011 controller: 1
channel: 3
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:51
EVENT SEQ. NUMBER: 568   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K008 controller: 1
channel: 2
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:51
EVENT SEQ. NUMBER: 569   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K004 controller: 1
channel: 1
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:51
EVENT SEQ. NUMBER: 570   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K001 controller: 1
channel: 1
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:51
EVENT SEQ. NUMBER: 571   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K005 controller: 1
channel: 2
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:51
EVENT SEQ. NUMBER: 572   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K006 controller: 1
channel: 2
Link Status: link down   Event: link down

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 10-06-97 20:02:51
EVENT SEQ. NUMBER: 573   EVENT TYPE: 5   CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K007 controller: 1
channel: 2
Link Status: link down   Event: link down

C.4.9.2 TCF Test Procedure Steps

The Following test procedure steps, referenced by evaluation criteria "a" of this test's Data Reduction and Analysis Method paragraph in the main body of this report, were extracted from test procedure file "IN-12D.TCF".

TEST ID: **IN-12D** TEST OPERATOR: ____HUGH H. VUONG________ DATE: _10/_06/_97 TIME: _14:57_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	**[X]** Pass [ ] Fail	Insert Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS/IPS Monitor port and the NLDN display port.	The patch cable connects the ADAS/IPS Monitor's & NLDN display 's port.	[X] Pass [ ] Fail	Insert Cable
3.	@Patch Panel: verify that a patch cable re-directs the IPS Log Port to the PSF-PC1 for data capture.	A cable patches the IPS Log port to the PSF-PC1 port.	[X] Pass [ ] Fail	Insert Cable
4.	@Patch Panel: verify that a patch cable re-directs the ADAS SEP Port to the PSF-PC2 for data capture.	A cable patches the SEP Port to the PSF-PC2 port.	[X] Pass [ ] Fail	Insert Cable
5.	@PC1: start data capture. **"cap_data [space] IN-12D.itd [RETURN]{wait}[RETURN]**.	The PSF-PC1 is configured to capture the IPS data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test
6.	@PC2: start data capture. **"cap_data [space] IN-12D [RETURN]{wait}[right][del][del][del]** "com" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test
7.	On NLDN system clear flash buffer. Go to {Flash-buffer}**[F][C]**{clear}**[y]**.	Display should indicate no flash on the IUC.	[X] Pass [ ] Fail	Stop Test
8.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The state of the ADAS apllication is displayed, followed by the 'adas' prompt.	[X] Pass [ ] Fail	Stop Test
9.	If the ADAS is not shutdown then -> @AUC 'adas' prompt: Issue the stop_adas command. **"stop_adas [RETURN]"**	The AUC indicates an emergency shutdown. The ASC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
10.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The state of the IPS application is displayed, followed by the 'aldars' prompt.	[X] Pass [ ] Fail	Stop Test

TEST ID: **IN-12D** TEST OPERATOR: ____HUGH H. VUONG________ DATE: _10/_06/_97 TIME: _14:57_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
11.	If IPS is not shutdown then -> @IUC 'aldars' prompt: Issue the command to Shutdown the IPS. **"stop_ips [RETURN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
12.	@IUC: enter " **ADR_On**"	Capture the data file(s) to the unix'/temp' directory, and print the data when the test is finished.	[X] Pass [ ] Fail	Stop Test
13.	@IUC and @ AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY shoud be obtained from the 10 digits output by IPS @IUC in the previous step. Set the date and time to the same minute. Use the GMT from the NLDN monitor display.	IUC and AUC will display the entered date and time.	[X] Pass [ ] Fail	Stop Test
14.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login.	[X] Pass [ ] Fail	Stop Test
15.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
16.	@ISC display: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**.	The IPS test time offset is reset to 0.	[X] Pass [ ] Fail	Stop Test
17.	@AUC 'adas' prompt: enter **"cl 69 [RETURN]"**	AUC Displays: Config **69** loaded	[X] Pass [ ] Fail	Stop Test
18.	@AUC 'adas' prompt: enter **"cd $1 [RETURN]"**	Change directory to the ADAS software log.	[X] Pass [ ] Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"rm * [RETURN]"**	Delete all the current log file.	[X] Pass [ ] Fail	Stop Test
20.	@AUC 'adas' prompt: enter **"Setlog 40 [RETURN]"**	Set software log to record all the events.	[X] Pass [ ] Fail	Stop Test
21.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Initialization State".	[X] Pass [ ] Fail	Stop Test
22.	Wait for ADAS to get to Operational State	Wait for "Specialist may login for the Operational State" to be displayed on AUC.	[X] Pass [ ] Fail	Stop Test
23.	@ISC ISI: start test **"IN-12D"**. **"[F8] [F7] IN-12D [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [SPACE] [RETURN] [RETURN] {wait} [F14] [F14]"**	ISI Response: "Starting Test..." then --- --- | Start Test Request: Success | | The Test Started | --- ---	[X] Pass [ ] Fail	Stop Test
24.	@IUC wait for displaying successive multiple " S Pong 4 " received.	S Pong 4 indicates that ADAS communicate with DLP.	[X] Pass [ ] Fail	Stop Test

TEST ID: **IN-12D** TEST OPERATOR: ____HUGH H. VUONG________ DATE: _10/_06/_97 TIME: _14:57_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
25.	@IUC ISI: enter **[F6] [F7]**	ISI display: "Ack after 45-50 secs after xfer to DLP to set start test flag".	[X] Pass [ ] Fail	Stop Test
26.	@ISC ISI: wait for the IPS clock displays @ 45-50 secs of the next mission cycle. Select **[F7]**.	Acknowledge event (start of the lightning script file).	[X] Pass [ ] Fail	Stop Test
27.	Record the time of test commencement below; as depicted on the ISI screen clock display, and the current date based on Zulu time. Hr:_14_min:_57_sec:_45_ Date:_10/06/97_ **[F14][F14]**.	Record the date/ time when select '**[F7]**' above.	[X] Pass [ ] Fail	Stop Test
28.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts.	[X] Pass [ ] Fail	Stop Test
29.	@ASC: NLDN Communications datapoint, Select **[F10] [F7] [N] [RETURN] [F2] [F14]**.	The NLDN Interface Status	[X] Pass [ ] Fail	Stop Test
30.	@ASC: DLP Communications datapoint, Select **[F7] [D] [RETURN] [F2] [F14]**.	The DLP Interface Status	[X] Pass [ ] Fail	Stop Test
31.	@ASC: WARP Communications datapoint, Select **[F7] [W] [RETURN] [F2] [F14]**.	The WARP Interface Status	[X] Pass [ ] Fail	Stop Test
32.	@ASC: WMSCR Communications datapoint, Select **[F7] [W] [DOWN] [RETURN] [F2] [F14]** .	The WMSCR Interface Status	[X] Pass [ ] Fail	Stop Test
33.	@ASC: ITWS1 Communications datapoint, Select **[F7]** [I] **[RETURN]**, enter "ID = I001",**[RETURN][F2] [F14]**.	The ITWS1 Interface Status	[X] Pass [ ] Fail	Stop Test
34.	@ASC: ITWS2 Communications datapoint, Select **[F7]** [I] **[RETURN]**, enter "ID = I002",**[RETURN][F2] [F14]**.	The ITWS2 Interface Status	[X] Pass [ ] Fail	Stop Test
35.	@ASC: ITWS3 Communications datapoint, Select **[F7]** [I] **[RETURN]**, enter "ID = I003",**[RETURN][F2] [F14]**.	The ITWS3 Interface Status	[X] Pass [ ] Fail	Stop Test
36.	@ASC: ITWS4 Communications datapoint, Select **[F7]**	The ITWS4 Interface Status	[X] Pass [ ] Fail	Stop Test

TEST ID: **IN-12D** TEST OPERATOR: ____HUGH H. VUONG________ DATE: _10/_06/_97 TIME: _14:57_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[I] **[RETURN]**, enter "ID = I004",**[RETURN][F2]** **[F14]**.			
37.	@ASC: ITWS5 Communications datapoint, Select **[F7]** [I] **[RETURN]**, enter "ID = I005",**[RETURN][F2]** **[F14]**.	The ITWS5 Interface Status	[X] Pass [ ] Fail	Stop Test
38.	@ASC: ITWS6 Communications datapoint, Select **[F7]** [I] **[RETURN]**, enter "ID = I006",**[RETURN][F2] [F14]** **F14]**.	The ITWS6 Interface Status	[X] Pass [ ] Fail	Stop Test
39.	@PC2: close Procomm software after capturing the test data. **{wait} [Alt-X] [RETURN]**.	Procomm Plus Closes	[X] Pass [ ] Fail	Stop Test
40.	@PC2: start data capture. **"cap_data [space] IN-12D [RETURN]{wait}[right][del][del][del]** "evt" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test
41.	Wait for Test to automatically end.	Expected Response @IUC: "**** ICP_CTLsta.c test_term() successfully ****"	[X] Pass [ ] Fail	Stop Test
42.	@AUC 'adas' prompt: enter **"Setlog 0 [RETURN]"**	Set software log to lower recording level.	[X] Pass [ ] Fail	Stop Test
43.	@AUC 'adas' prompt: enter **"cd /usr/ote [RETURN]"**	Change to the OTE directory.	[X] Pass [ ] Fail	Stop Test
44.	@AUC 'adas' prompt: enter **"mkdir IN-12D [RETURN]"**	Make a IN-12D directory.	[X] Pass [ ] Fail	Stop Test
45.	@AUC 'adas' prompt: enter **"cd IN-12D [RETURN]"**	change to the IN-12D directory.	[X] Pass [ ] Fail	Stop Test
46.	@AUC 'adas' prompt: enter **"cp $1/chd_err.log . [RETURN]"**	copy chd.err.log file at the software log directory to the current directory.	[X] Pass [ ] Fail	Stop Test
47.	@AUC 'adas' prompt: enter **"cp $1/cwm_err.log . [RETURN]"**	copy cwm_err.log file at the software log directory to the current directory.	[X] Pass [ ] Fail	Stop Test
48.	@AUC 'adas' prompt: enter **"lp chd_err.log [RETURN]"**	printout a chd.err.log file.	[X] Pass [ ] Fail	Stop Test
49.	@AUC 'adas' prompt: enter **"lp cwm_err.log [RETURN]"**	printout a cwm.err.log file.	[X] Pass [ ] Fail	Stop Test
50.	@ISI: Output the AWOS ERROR Out Incomming Message Log (IML) to file. **"[F7] [F8] [F7] IN-12D [RETURN][RETURN] [SPACE] [RETURN] [A] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [RETURN] [RETURN] {wait} [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST ID: **IN-12D** TEST OPERATOR: ____HUGH H. VUONG________ DATE: _10/_06/_97 TIME: _14:57_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
51.	@ISI: Output the ITWS1 LDD Out Incomming Message Log (IML) to file. "**[F7] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [I] [DOWN] [RETURN] [RETURN] {wait} [F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
52.	@ISI: Output the ITWS1 AWOS Out Incomming Message Log (IML) to file. "**[F7] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [I] [RETURN] [RETURN] {wait} [F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
53.	@ISI: Output the DLP AWOS Out Incomming Message Log (IML) to file. "**[F7] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [D] [RETURN] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
54.	@ISI: Output the WARP AWOS Out Incomming Message Log (IML) to file. "**[F7] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [R] [RETURN] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
55.	@ISI: Output the WMSCR SHEF Out Incomming Message Log (IML) to file. "**[F7] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [W] [DOWN] [RETURN] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
56.	@ISI: Output the WMSCR METAR Out Incomming Message Log (IML) to file. "**[F7] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [W] [DOWN] [DOWN] [RETURN] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
57.	@ISI: Output the WMSCR SUMMARY Out Incomming Message Log (IML) to file. "**[F7] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [W] [DOWN] [DOWN] [DOWN] [RETURN] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
58.	@ISI: Output the NLDN LDD Output Outgoing Message Log (OML) to file. "**[F8] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [N] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
59.	@ISI: Output the AWOS MESSAGES Output Outgoing Message Log (OML) to file. "**[F8] IN-12D [RETURN] [RETURN] [SPACE] [RETURN] [A] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
60.	@ISI: Output the SUMMARY MESSAGES Output Outgoing	The specified log is output to the '/tmp' directory.	**[X]** Pass [ ] Fail	Stop Test

TEST ID: **IN-12D** TEST OPERATOR: ____HUGH H. VUONG________ DATE: _10/_06/_97 TIME: _14:57_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	Message Log (OML) to file. "**[F8] IN-12D [RETURN][RETURN] [SPACE] [RETURN][S][DOWN][DOWN][DOWN][DOWN][RETURN] {wait} [F14]**"	The Output Message Log Screen is displayed.		
61.	@ISI: Output the METAR MESSAGES Output Outgoing Message Log (OML) to file. "**[F8] IN-12D[RETURN] [RETURN] [SPACE] [RETURN] [M] [RIGHT] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [RETURN] {wait} [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[X] Pass [ ] Fail	Stop Test
62.	@ISI: Output the SHEF MESSAGES Output Outgoing Message Log (OML) to file. "**[F8] IN-12D [RETURN][RETURN] [SPACE] [RETURN] [S] [DOWN] [RETURN] {wait} [F14][F14][F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	[X] Pass [ ] Fail	Stop Test
63.	@ASC SI: Select **[F13] [F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 1 **[RETURN][F14]**.	EVENT LOG for status of the DLP connection has changed.	[X] Pass [ ] Fail	Stop Test
64.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 2 **[RETURN][F14]**.	EVENT LOG for status of the WARP connection has changed.	[X] Pass [ ] Fail	Stop Test
65.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 5 **[RETURN][F14]**.	EVENT LOG for status of the AWOS/ASOS connection has changed.	[X] Pass [ ] Fail	Stop Test
66.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 12 **[RETURN][F14]**.	EVENT LOG for status of the WMSCR connection has changed.	[X] Pass [ ] Fail	Stop Test
67.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 61 **[RETURN][F14]**.	EVENT LOG for status of the ITWS connection has changed.	[X] Pass [ ] Fail	Stop Test

TEST ID: **IN-12D** TEST OPERATOR: ____HUGH H. VUONG________ DATE: _10/_06/_97 TIME: _14:57_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
68.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 62 **[RETURN]** **[F14]** **[F14][F14]**.	EVENT LOG for status of the NLDN connection has changed.	**[X]** Pass **[ ]** Fail	Stop Test
69.	@ISC ISI: Issue the command to Shutdown IPS. "**[F8]** **[F10]** **[SPACE]** **[RETURN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
70.	@ASC SI: Issue the command to Shutdown ADAS. "**[F7]** **[F8]** **[SPACE]** **[RETURN]**"	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
71.	@PC1: close Procomm software after capturing the test data. **{wait]** **[Alt-X]** **[RETURN]**.	Procomm Plus closes.	**[X]** Pass **[ ]** Fail	Stop Test
72.	@PC2: close Procomm software after capturing the test data. **{wait]** **[Alt-X]** **[RETURN]**.	Procomm Plus closes.	**[X]** Pass **[ ]** Fail	Stop Test
73.	@AUC: enter **"exit"**	The AUC displays a login prompt.	**[X]** Pass **[ ]** Fail	Stop Test
74.	@IUC: enter **"exit"**	The IUC displays a login prompt.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.4.10 TEST IN-12E - WMSCR Interface

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.4.10.1 Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[xx]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[xx]	[ ]	The X.25 packet switching protocol through the NADIN II Network. CR01 NAS-SS-1000 Volume II, Figure 3.2.1.5.8.3.1 and Table 3.2.1.5.6.3-1b, and/or the pertinent NADIN II User/ADAS ICD.
c.	[xx]	[ ]	The Transport Layer, Service Class 4, to enable ADAS Application Processes to communicate with those of its NADIN II User. CR02 NAS-SS-1000 Volume II, Figure 3.2.1.5.8.3.1 and Table 3.2.1.5.6.3-1b, and/or the pertinent NADIN II User/ADAS ICD.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into test IN-12E's Test Conduct Form (TCF) file, "IN-12E.TCF".

DATA EXTRACTED FROM LMPA FILE:

MON/DISK/FD1 BLK=00050 03/18/98 18:18 Page : 1 CR01

SRC	LCN	TYPE	Pr	Ps	QDM	MISC	SIZE	BCC
DTE	028	DATA	5	7			0018	[G]
DTE	028	DATA	5	0			0122	[G]
DTE	028	DATA	5	1			0104	[G]
DTE	028	DATA	5	2			0148	[G]
DCE	028	RR	3				0003	[G]

DCE	028	DATA	3	5		0008	[G]
DCE	028	DATA	3	6		0008	[G]
DTE	028	DATA	5	3		0219	[G]
DCE	028	DATA	4	7		0008	[G]
DCE	028	CLEAR			93F4	0005	[G]
DTE	028	CLEAR C				0003	[G]
DTE	028	CALL	AA00130412000013 0203002A42080843			0057	[G]
DCE	028	CALLACC	000802CC42080843 0404			0013	[G]
DTE	028	DATA	0	0		0219	[G]
DCE	028	DATA	1	0		0008	[G]
DCE	028	DATA	1	1		0008	[G]
DTE	028	DATA	2	1		0018	[G]
DTE	028	DATA	2	2		0008	[G]
DCE	028	DATA	3	2		0008	[G]
DTE	028	DATA	3	3		0018	[G]
DTE	028	DATA	3	4		0122	[G]
DTE	028	DATA	3	5		0104	[G]
DTE	028	DATA	3	6		0148	[G]
DCE	028	RR	7			0003	[G]
DCE	028	DATA	7	3		0008	[G]
DTE	028	DATA	3	7		0219	[G]
DCE	028	DATA	7	4		0008	[G]
DCE	028	DATA	0	5		0008	[G]
DCE	028	DATA	0	6		0008	[G]
DTE	028	RR	7			0003	[G]
DCE	028	DATA	0	7		0008	[G]
DTE	028	DATA	0	0		0018	[G]
DTE	028	DATA	0	1		0008	[G]
DCE	028	DATA	2	0		0008	[G]

DTE	028	DATA	1	2			0018 [G]
DTE	028	DATA	1	3			0122 [G]
DCE	028	DATA	4	1			0008 [G]
DTE	028	DATA	1	4			0104 [G]
DTE	028	DATA	2	5			0148 [G]
DCE	028	DATA	5	2			0008 [G]

MON/DISK/FD1 BLK=00054 03/18/98 18:21 Page : 1

SRC	LCN	TYPE	Pr	Ps	QDM	MISC	SIZE BCC
DTE	028	DATA	2	6			0219 [G]
DCE	028	DATA	7	3			0008 [G]
DCE	028	DATA	7	4			0008 [G]
DCE	028	DATA	7	5			0008 [G]
DTE	028	RR	6				0003 [G]
DTE	028	DATA	6	7			0018 [G]
DCE	028	DATA	0	6			0008 [G]
DTE	028	DATA	7	0			0018 [G]
DTE	028	DATA	7	1			0122 [G]
DCE	028	DATA	2	7			0008 [G]
DTE	028	DATA	0	2			0104 [G]
DCE	028	DATA	3	0			0008 [G]
DTE	028	DATA	0	3			0148 [G]
DTE	028	DATA	0	4			0219 [G]
DCE	028	DATA	5	1			0008 [G]
DCE	028	DATA	5	2			0008 [G]
DTE	028	DATA	3	5			0008 [G]
DCE	028	DATA	6	3			0008 [G]
DTE	028	DATA	4	6			0018 [G]
DCE	028	DATA	7	4			0008 [G]

DATA EXTRACTED FROM IPS FILE AND WMSCR FILE: (CR02)

ADAS AWOS OUTPUT MESSAGE/WMSCR METAR INPUT MESSAGE

....

OUTPUT MESSAGE #: 444

TRANSMIT TIME (IPS): 03/18/98 18:17:00
TRANSMIT TIME (ADAS): 03/18/98 18:17:00
TIME OFFSET: 0
STATION ID: 12
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

....

OUTPUT MESSAGE #: 459

TRANSMIT TIME (IPS): 03/18/98 18:18:01
TRANSMIT TIME (ADAS): 03/18/98 18:18:01
TIME OFFSET: 0
STATION ID: 12
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

....

The WMSCR METAR INPUT MESSAGE file was contained in the WMSCR printout. Due to the printout size and the volume of test data, it has not been included in this section.

ADAS METAR OUTPUT MESSAGE/WMSCR METAR INPUT MESSAGE

OUTPUT MESSAGE #: 443

....

TRANSMIT TIME (IPS): 03/18/98 18:17:00
TRANSMIT TIME (ADAS): 03/18/98 18:17:00
TIME OFFSET: 0
STATION ID: 17
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0

0	1	0
0	1	0

....

OUTPUT MESSAGE #: 463

TRANSMIT TIME (IPS): 03/18/98 18:18:01
TRANSMIT TIME (ADAS): 03/18/98 18:18:01
TIME OFFSET: 0
STATION ID: 17
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:	
0		1	0
0		1	0
0		1	0

....

The WMSCR METAR INPUT MESSAGE file was contained in the WMSCR printout. Due to the printout size and the volume of test data, it has not been included in this section.

ADAS AWOS OUTPUT MESSAGE/WMSCR METAR INPUT MESSAGE

....

OUTPUT MESSAGE #: 446

[redacted]
TIME OFFSET: 0
[redacted]
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:	
0		1	0
0		1	0
0		1	0

....

OUTPUT MESSAGE #: 462

[redacted]
TIME OFFSET: 0
[redacted]
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:	
0		1	0
0		1	0
0		1	0

....

[redacted]

ADAS SUMMARY OUTPUT MESSAGE/WMSCR SUMMARY INPUT MESSAGE

....

OUTPUT MESSAGE #: 106

TRANSMIT TIME (IPS): 03/18/98 18:18:01
TRANSMIT TIME (ADAS): 03/18/98 18:18:01
TIME OFFSET: 0
STATION ID: 20
MESSAGE TYPE: ADAS_SUMMARY_MSG
FILE NAME: aw_summ/dly1_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 107

TRANSMIT TIME (IPS): 03/18/98 18:18:01
TRANSMIT TIME (ADAS): 03/18/98 18:18:01
TIME OFFSET: 0
STATION ID: 21
MESSAGE TYPE: ADAS_SUMMARY_MSG
FILE NAME: aw_summ/dly1_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 108

TRANSMIT TIME (IPS): 03/18/98 18:18:02
TRANSMIT TIME (ADAS): 03/18/98 18:18:02
TIME OFFSET: 0
STATION ID: 22
MESSAGE TYPE: ADAS_SUMMARY_MSG
FILE NAME: aw_summ/dly1_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

....

[redacted]

ADAS SHEF OUTPUT MESSAGE/WMSCR SHEF INPUT MESSAGE

....

OUTPUT MESSAGE #: 69

TRANSMIT TIME (IPS): 03/18/98 18:17:00
TRANSMIT TIME (ADAS): 03/18/98 18:17:00
TIME OFFSET: 0
STATION ID: 18
MESSAGE TYPE: ADAS_SHEF_MSG
FILE NAME: aw_shef/shef1_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 70

TRANSMIT TIME (IPS): 03/18/98 18:17:02
TRANSMIT TIME (ADAS): 03/18/98 18:17:02
TIME OFFSET: 0
STATION ID: 19
MESSAGE TYPE: ADAS_SHEF_MSG
FILE NAME: aw_shef/shef2_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 71

TRANSMIT TIME (IPS): 03/18/98 18:18:01
TRANSMIT TIME (ADAS): 03/18/98 18:18:01
TIME OFFSET: 0
STATION ID: 18
MESSAGE TYPE: ADAS_SHEF_MSG
FILE NAME: aw_shef/shef1_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 72

TRANSMIT TIME (IPS): 03/18/98 18:18:02
TRANSMIT TIME (ADAS): 03/18/98 18:18:02
TIME OFFSET: 0
STATION ID: 19
MESSAGE TYPE: ADAS_SHEF_MSG
FILE NAME: aw_shef/shef2_std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0

0	1	0
0	1	0

....

The WMSCR SHEF INPUT MESSAGE file was contained in the WMSCR printout. Due to the printout size and the volume of test data, it has not been included in this section.

DATA EXTRACTED FROM ADAS FILE:

1. COMMUNICATION CHARACTERISTICS (CR01 & cr02)

. 03-18-98 17:41:35 . Events: 11 . Responses: 0 . DATAPOINT CMDS .

DISPLAY NLDN COMMUNICATIONS LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					03-18-98 17:26:32
NLDN FAILURES TOTAL:	02	0					03-18-98 17:26:32
ERROR DETECTED:	03	0					03-18-98 17:26:32
ERROR DETECTED TOTAL:	04	0					03-18-98 17:26:32

. 03-18-98 17:41:49 . Events: 13 . Responses: 0 . DATAPOINT CMDS .

DISPLAY WMSCR COMMUNICATIONS LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					03-18-98 17:26:32
METAR MESSAGES SENT:	02	0					03-18-98 17:26:32
ADU DATA TRANSFERS:	03	0					03-18-98 17:26:32
SHEF MESSAGES SENT:	04	0					03-18-98 17:26:32
SHEF MSG DISCARDS:	05	0					03-18-98 17:26:32

. 03-18-98 17:42:07 . Events: 18 . Responses: 0 . DATAPOINT CMDS .

DISPLAY AWOS STATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					03-18-98 17:26:33

FRAMES TRANSMITTED:	02	48	03-18-98 17:26:33
FRAMES RETRANSMITTED:	03	0	03-18-98 17:26:33
FRAMES NOT DELIVERED:	04	0	03-18-98 17:26:33
FRAMES DELIVERED:	05	16	03-18-98 17:26:33

2. ADAS EVENT LOG: (CR01 & CR02)

....

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:26:28
EVENT SEQ. NUMBER: 58 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: KSMI controller: 7
channel: 6
Link Status: link down Event: link down

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:12
EVENT SEQ. NUMBER: 628 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K013 controller: 1
channel: 3
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:12
EVENT SEQ. NUMBER: 629 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K012 controller: 1
channel: 3
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:12
EVENT SEQ. NUMBER: 630 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K008 controller: 1
channel: 2
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:12
EVENT SEQ. NUMBER: 631 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K009 controller: 1
channel: 2
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:12
EVENT SEQ. NUMBER: 632 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K010 controller: 1
channel: 2
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:12
EVENT SEQ. NUMBER: 633 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K011 controller: 1
channel: 2
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:13
EVENT SEQ. NUMBER: 635 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K001 controller: 1
channel: 1
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:13
EVENT SEQ. NUMBER: 636 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K005 controller: 1
channel: 2
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:13
EVENT SEQ. NUMBER: 637 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K002 controller: 1
channel: 1
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:13
EVENT SEQ. NUMBER: 638 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K006 controller: 1
channel: 2
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:13
EVENT SEQ. NUMBER: 639 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K003 controller: 1
channel: 1
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:13
EVENT SEQ. NUMBER: 640 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K007 controller: 1
channel: 2
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 17:42:13
EVENT SEQ. NUMBER: 641 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K004 controller: 1
channel: 1
Link Status: up Event: link reset

EVENT PRIORITY: non-critical DATE/TIME STAMP: 03-18-98 18:40:35
EVENT SEQ. NUMBER: 1296 EVENT TYPE: 5 CSC ID: 3.02
Status of the AWOS connection has changed.

AWOS station id: K005 controller: 1
channel: 2
Link Status: disconnect Event: link disconnect

C.4.10.2 TCF Test Procedure Steps

The Following test procedure steps, referenced by evaluation criteria "a" of this test's Data Reduction and Analysis Method paragraph in the main body of this report, were extracted from test procedure file "IN-12E.TCF".

TEST ID: **IN-12E** TEST OPERATOR: ______Hugh H. Vuong______ DATE: 03_/18_/98_ TIME: 17_:39_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	By coordination with the NADIN, verify that NADIN node is properly configured for ADAS as a user and for the particular NADIN User involved in this test.	The NADIN II node is properly configured.	**[x]** Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable re-directs the ADAS/NADIN monitor port to COMSCOPE(1) port.	A cable patches the ADAS/NADIN monitor port to the COMSCOPE(1) port.	**[x]** Pass [ ] Fail	Stop Test
3.	Power on the COMSCOPE(1) 904 and configure to: PROGRAM OPTION: **X.25** Mode: **HDLC** Idle: **FLAG** Data Coding: **NRZ** Bits/Char: **8** Code: **ASCII** Speed: **64000** Journal: **WMSCR{date}**	Configure the LMPA to capture the link (ADAS/NADIN/WMSCR) information being exchanged for screen examination and to store information in the file for retrieval.	**[x]**Pass [ ]Fail	Stop Test
4.	@Patch Panel: Verify that a patch cable connects the OTIS AWOS Monitor port to the COMPSCOPE(2) Port.	A cable patches the COMPSCOPE(2) port to the OTIS Monitor port.	**[x]**Pass [ ]Fail	Insert Cable
5.	Power on the COMSCOPE(2) 904 and configure to: PROGRAM OPTION: **HDLC** Mode: **HDLC** Idle: **FLAG** Data Coding: **NRZ** Bits/Char: **8** Code: **ASCII** Speed: **2400** Journal: **OTIS{date}**	Configure the LMPA to capture the link (OTIS/ADAS) information being exchanged for screen examination and to store information in the file for retrieval.	**[x]**Pass [ ]Fail	Stop Test
6.	@AB SW BOX: turn the switch to **"A"**.	connect "live" NLDN Port to the ADAS/NLDN port.	**[x]**Pass [ ]Fail	Insert Cable
7.	@Patch Panel: verify that a patch cable re-directs the ADAS SEP Port to the PSF-PC1 for data capture.	A cable patches the ADAS SEP port to the PSF-PC1 port.	**[x]**Pass [ ]Fail	Insert Cable
8.	@PC1: start data capture. **"cap_data [space] IN-12E [RETURN] {wait} [RIGHT] [del] [del] [del]** "com"	The PSF-PC1 is configured to capture the	**[x]**Pass [ ]Fail	Stop Test

TEST ID: **IN-12E** TEST OPERATOR: ______Hugh H. Vuong______ DATE: 03_/18_/98_ TIME: 17_:39_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN].	ADAS data output into a DOS ASCII file.		
9.	Insure that the WMSCR involved in this test is configured and initialized the Incoming Message Storage Area.	The NADIN II User is properly configured.	**[x]**Pass **[ ]**Fail	Stop Test
10.	@AUC login as user 'adas': login: **"adas"** password: **"adas123"**	The ADAS prompt should appear on the AUC.	**[x]**Pass **[ ]**Fail	Stop Test
11.	If the ADAS is not shutdown then -> @AUC 'adas' prompt: Issue the stop_adas command. **"stop_adas [RETURN]"**	The ASC displays a 'login' prompt.	**[x]**Pass **[ ]**Fail	Stop Test
12.	@IUC login as user 'aldars': login: **"aldars"** password: **"metar1"**	The IUC displays the current state of the IPS application then the 'aldars' prompt.	**[x]**Pass **[ ]**Fail	Stop Test
13.	If IPS is not shutdown then -> @IUC 'aldars' prompt: Issue the command to Shutdown the IPS. **"stop_ips [RETURN]"**	The ISC displays a 'login' prompt.	**[x]**Pass **[ ]**Fail	Stop Test
14.	@IUC: enter " **ADR_On"**	Capture the data file(s) to the unix'/temp' directory, and print the data when the test is finished.	**[x]**Pass **[ ]**Fail	Stop Test
15.	@IUC and @ AUC enter **"setdate MMDDhhmmYY"** (MMDDhhmmYY shoud be obtained from the 10 digits output by IPS @IUC in the previous step. Set the date and time to the same minute. Use the GMT from the NLDN monitor display. (note: WMSCR sys. time is behind 2 hours comparing to ADAS time. set the ADAS/IPS time back to 2 hours, so the ADAS and WMSCR time can sync.)	IUC and AUC will display the entered date and time.	**[x]**Pass **[ ]**Fail	Stop Test
16.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login	**[x]**Pass **[ ]**Fail	Stop Test
17.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts.	**[x]**Pass **[ ]**Fail	Stop Test
18.	@ISC display: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**.	The IPS test time offset is reset to 0.	**[x]**Pass **[ ]**Fail	Stop Test
19.	@AUC 'adas' prompt: enter **"cl 67 [RETURN]"**	AUC Displays: Config 67 loaded	**[x]**Pass **[ ]**Fail	Stop Test
20.	@AUC 'adas' prompt: enter **"cd $1 [RETURN]"**	Change directory to the ADAS software log.	**[x]**Pass **[ ]**Fail	Stop Test

TEST ID: **IN-12E** TEST OPERATOR: _______Hugh H. Vuong_______ DATE: 03_/18_/98_ TIME: 17_:39_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
21.	@AUC 'adas' prompt: enter **"rm * [RETURN]"**	Delete all the current log file.	**[x]**Pass [ ]Fail	Stop Test
22.	@AUC 'adas' prompt: enter **"Setlog 40 [RETURN]"**	Set software log to record all the events.	**[x]**Pass [ ]Fail	Stop Test
23.	@AUC 'adas' prompt: enter **"sa clean [RETURN]"**	Wait until the AUC Displays "Specialists may logon for Operational State".	**[x]**Pass [ ]Fail	Stop Test
24.	Wait for ADAS to get to Operational State	Wait for "Specialist may login for the Operational State" to be displayed on AUC.	**[x]**Pass [ ]Fail	Stop Test
25.	@ISC ISI: start test **"IN-12E"**. **"[F8] [F7] IN-12E [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [SPACE] [RETURN] [RETURN] {wait} [F14] [F14]"**	ISI Response:"Starting Test..." then --- --- | Start Test Request: Success | | The Test Started | --- ---	**[x]**Pass [ ]Fail	Stop Test
26.	Record the time of test commencement below; as depicted on the ISI screen clock display, and the current date based on Zulu time. Hr:_17_min:_39_sec:_16_ Date_03/18/98__ **[F14][F14]**.	Record the date/ time.	**[x]**Pass [ ]Fail	Stop Test
27.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts	**[x]**Pass [ ]Fail	Stop Test
28.	@ASC: NLDN Communications datapoint, Select **[F10] [F7] [N] [RETURN] [F2] [F14]**.	The NLDN Interface Status	**[x]**Pass [ ]Fail	Stop Test
29.	@ASC: WSMCR Communications datapoint, Select **[F7] [W] [DOWN] [RETURN] [F2] [F14]**.	The WMSCR Interface Status	**[x]**Pass [ ]Fail	Stop Test
30.	@ASC: OTIS AWOS Communications datapoint, Select **[F7] [A] [DOWN][DOWN][RETURN]**, enter "ID = OTIS",**[RETURN][F2] [F14]**.	The OTIS AWOS Interface Status	**[x]**Pass [ ]Fail	Stop Test
31.	@ASC: Richmond AWOS Communications datapoint, Select **[F7] [A] [DOWN] [DOWN] [RETURN]**, enter "ID = DPVG",**[RETURN] [F2] [F14][F14]**.	The Richmond AWOS Interface Status	**[x]**Pass [ ]Fail	Stop Test
32.	@PC1: close Procomm software after capturing the	Procomm Plus closes	**[x]**Pass [ ]Fail	Stop Test

TEST ID: **IN-12E** TEST OPERATOR: _______Hugh H. Vuong_______ DATE: 03_/18_/98_ TIME: 17_:39_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	test data. **{wait] [Alt-X] [RETURN]**.			
33.	@PC1: start data capture. "**cap_data [space] IN-12E [RETURN]{wait}[right][del][del][del]** "evt" **[RETURN]**.	The PSF-PC1 is configured to capture the ADAS data output into a DOS ASCII file.	**[x]**Pass [ ]Fail	Stop Test
34.	@ISC ISI: wait until the IPS clock is at least 2 hours greater than the time recorded in the step above, enter **[F8][F8]**.	Expected Response @IUC: "**** ICP_CTLsta.c test_term() successfully ****"	**[x]**Pass [ ]Fail	Stop Test
35.	Record the time of test termination below; as depicted on the ISI screen clock display, and the current date based on Zulu time. Hr:_18_min:_41_sec:_00_ Date_03/18/98_ **[F14][F14]**.	Record the date/ time.	**[x]**Pass [ ]Fail	Stop Test
36.	Coordinate with the WMSCR personnel involved, to collect the test data from the WMSCR.	Collecting the WMSCR data "Incoming Message Storage Area".	**[x]**Pass [ ]Fail	Stop Test
37.	@ASC SI: Select **[F13][F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 5 **[RETURN][F14]**.	EVENT LOG for status of the AWOS/ASOS connection has changed.	**[x]**Pass [ ]Fail	Stop Test
38.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 12 **[RETURN][F14]**.	EVENT LOG for status of the WMSCR connection has changed.	**[x]**Pass [ ]Fail	Stop Test
39.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 62 **[RETURN] [F14] [F14] [F14]**.	EVENT LOG for status of the NLDN connection has changed.	**[x]**Pass [ ]Fail	Stop Test
40.	@PC1: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[x]**Pass [ ]Fail	Stop Test
41.	@PC1: start data capture. "**cap_data [space] IN-12E [RETURN]{wait}[right][del][del][del]** "log"	The PSF-PC1 is configured to capture the ADAS data output into a DOS ASCII file.	**[x]**Pass [ ]Fail	Stop Test

TEST ID: **IN-12E** TEST OPERATOR: _______Hugh H. Vuong_______ DATE: 03_/18_/98_ TIME: 17_:39_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN].			
42.	@AUC 'adas' prompt: enter **"Setlog 0 [RETURN]"**	Set software log to lower recording level.	**[x]**Pass **[ ]**Fail	Stop Test
43.	@AUC 'adas' prompt: enter **"cd /usr/ote [RETURN]"**	Change to the OTE directory.	**[x]**Pass **[ ]**Fail	Stop Test
44.	@AUC 'adas' prompt: enter **"mkdir IN-12E [RETURN]"**	Make a IN-12E directory.	**[x]**Pass **[ ]**Fail	Stop Test
45.	@AUC 'adas' prompt: enter **"cd IN-12E [RETURN]"**	change to the IN-12E directory.	**[x]**Pass **[ ]**Fail	Stop Test
46.	@AUC 'adas' prompt: enter **"cp $1/chd_err.log . [RETURN]"**	copy chd.err.log file at the software log directory to the current directory.	**[x]**Pass **[ ]**Fail	Stop Test
47.	@AUC 'adas' prompt: enter **"cp $1/cwm_err.log . [RETURN]"**	copy cwm_err.log file at the software log directory to the current directory.	**[x]**Pass **[ ]**Fail	Stop Test
48.	@AUC 'adas' prompt: enter **"lp chd_err.log [RETURN]"**	printout a chd.err.log file.	**[x]**Pass **[ ]**Fail	Stop Test
49.	@AUC 'adas' prompt: enter **"lp cwm_err.log [RETURN]"**	printout a cwm.err.log file.	**[x]**Pass **[ ]**Fail	Stop Test
50.	@PC1: close Procomm software after capturing the test data. **{wait} [Alt-X] [RETURN]**.	Procomm Plus closes.	**[x]**Pass **[ ]**Fail	Stop Test
51.	@Patch Panel: verify that a patch cable re-directs the IPS Log Port to the PSF-PC1 for data capture.	A cable patches the IPS Log port to the PSF-PC1 port.	**[x]**Pass **[ ]**Fail	Stop Test
52.	@PC1: start data capture. **"cap_data [space] IN-12E.itd [RETURN] {wait} [RETURN]**.	The PSF-PC1 is configured to capture the IPS data output into a DOS ASCII file.	**[x]**Pass **[ ]**Fail	Stop Test
53.	@ISI: Output the AWOS MESSAGE Output Outgoing Message Log (OML) to file. **"[F8] IN-12E [RETURN] [RETURN] [SPACE] [RETURN] [A] [RETURN] {wait} [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[x]**Pass **[ ]**Fail	Stop Test
54.	@ISI: Output the SHEF MESSAGE Output Outgoing Message Log (OML) to file. **"[F8] IN-12E [RETURN] [RETURN][SPACE] [RETURN] [S] [DOWN] [RETURN] {wait} [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[x]**Pass **[ ]**Fail	Stop Test
55.	@ISI: Output the METAR MESSAGE Output Outgoing Message Log (OML) to file. **"[F8] IN-12E [RETURN] [RETURN] [SPACE] [RETURN] [M] [RIGHT] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [DOWN] [RETURN] {wait} [F14]"**	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[x]**Pass **[ ]**Fail	Stop Test

TEST ID: **IN-12E** TEST OPERATOR: _______Hugh H. Vuong_______ DATE: 03_/18_/98_ TIME: 17_:39_ TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
56.	@ISI: Output the SUMMARY MESSAGE Output Outgoing Message Log (OML) to file. "**[F8] IN-12E [RETURN] [RETURN] [SPACE] [RETURN] [S] [RIGHT] [RIGHT] [DOWN] [DOWN] [DOWN] [DOWN] [RETURN] {wait} [F14][F14][F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[x]**Pass **[ ]**Fail	Stop Test
57.	@ASC SI: Issue the command to Shutdown ADAS. "**[F7] [F8] [SPACE] [RETURN]**"	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[x]**Pass **[ ]**Fail	Stop Test
58.	@ISC ISI: Issue the command to Shutdown IPS. "**[F8] [F10] [SPACE] [RETURN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[x]**Pass **[ ]**Fail	Stop Test
59.	@PC1: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[x]**Pass **[ ]**Fail	Stop Test
60.	@AUC: enter **"exit"**	The AUC displays a login prompt.	**[x]**Pass **[ ]**Fail	Stop Test
61.	@IUC: enter **"exit"**	The IUC displays a login prompt.	**[x]**Pass **[ ]**Fail	Stop Test

- - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - - END OF TEST PROCEDURE - - - - -

C.5. CATEGORY IT - ITWS Tests

C.5.1. TEST IT-01 - Channel Connection Test FST (ITWS)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.5.1.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IT-01.)
b.	[XX]	[ ]	The retrieved ADAS Event Log must show that ADAS successfully detected the loss of connection CR1 with the 6 ITWS simulators and their subsequent re-connection CR2.
c.	[XX]	[ ]	The Data Reduction Summary of the DLP AWOS log must have indicated that each mission cycle, the DLP receive an OMO for each of the 5 AWOS sites.
d.	[XX]	[ ]	The ITWS6 AWOS message log must have shown AWOS format messages (OMO's) were received both before CR4A and after CR4B the ITWS's communications were temporarily disabled, and the total number of OMO's received by the ITWS CR4C should be 5 less (1 mission cycle's of OMO's) than the total number of OMO's received by the DLP CR3. (ISS2-001).
e.	[XX]	[ ]	The MPS ALARM log must have indicated detection of communications failure on all 6 ITWS's CR5, and the MPS RETURN TO NORMAL log must have indicated detection of communications were re-established with the ITWS's CR6.
f.	[XX]	[ ]	The LDD message logs for each ITWS must have shown LDD messages were receive both before CR7A and after CR7B the disabling of the ITWS communication. (ISS2-001).

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IT-01's Test Conduct Form (TCF) file, "IT-01.TCF".

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:22:39
EVENT SEQ. NUMBER: 262 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:22:43
EVENT SEQ. NUMBER: 263 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:22:46
EVENT SEQ. NUMBER: 264 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:22:49
EVENT SEQ. NUMBER: 265 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:22:53
EVENT SEQ. NUMBER: 266 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:22:56
EVENT SEQ. NUMBER: 267 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:23:41
EVENT SEQ. NUMBER: 282 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:23:42
EVENT SEQ. NUMBER: 283 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 02-10-98 23:23:44

EVENT SEQ. NUMBER: 284   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-10-98 23:23:48
EVENT SEQ. NUMBER: 285   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-10-98 23:23:51
EVENT SEQ. NUMBER: 286   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-10-98 23:23:52
EVENT SEQ. NUMBER: 287   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-active

New ADU ## INPUT MESSAGE #: 7
ADU#: 7 | (IPS): 02/10/98 23:26:02 - (ADAS): 02/10/98 23:26:02 | msgs 5
Hdr: Sim-2 | ADU size: 347 | Type: DLP Awos | OMO's = 5
K003 K004 K001 K005 K002

Total Site Reports Processed = 35
Total number of sites = 5

Site ID # of msgs (6 per line)

K001 - 7   K002 - 7   K003 - 7   K004 - 7   K005 - 7

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | (IPS): 02/10/98 23:20:14 - (ADAS): 02/10/98 23:20:14 | msgs 5
Hdr: Sim-11 | ADU size: 392 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x05
K003 K004 K001 K002 K005

New ADU ## INPUT MESSAGE #: 2
ADU#: 2 | (IPS): 02/10/98 23:21:12 - (ADAS): 02/10/98 23:21:12 | msgs 5
Hdr: Sim-11 | ADU size: 392 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x05
K001 K002 K005 K003 K004

New ADU ## INPUT MESSAGE #: 3
ADU#: 3 | (IPS): 02/10/98 23:22:11 - (ADAS): 02/10/98 23:22:11 | msgs 5
Hdr: Sim-11 | ADU size: 392 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x05
K003 K004 K005 K001 K002

New ADU ## INPUT MESSAGE #: 4
ADU#: 4 | (IPS): 02/10/98 23:24:11 - (ADAS): 02/10/98 23:24:11 | msgs 5
Hdr: Sim-11 | ADU size: 392 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x05
K005 K003 K004 K001 K002

New ADU ## INPUT MESSAGE #: 5
ADU#: 5 | (IPS): 02/10/98 23:25:11 - (ADAS): 02/10/98 23:25:11 | msgs 5
Hdr: Sim-11 | ADU size: 392 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x05
K001 K002 K005 K003 K004

New ADU ## INPUT MESSAGE #: 6
ADU#: 6 | (IPS): 02/10/98 23:26:11 - (ADAS): 02/10/98 23:26:11 | msgs 5
Hdr: Sim-11 | ADU size: 392 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x05
K003 K004 K001 K005 K002

Total Site Reports Processed = 30
Total number of sites = 5

Site ID # of msgs (6 per line)

K001 - 6 K002 - 6 K003 - 6 K004 - 6 K005 - 6

INPUT MESSAGE #: 1

RECEIVE TIME (IPS):	02/10/98 23:23:03		
RECEIVE TIME (ADAS):	02/10/98 23:23:03		
SIMULATOR ID:	3		
MESSAGE TYPE:	MPS ALARM		
MESSAGE SIZE:	21		
GROUP ID:	0		
MESSAGE TYPE: MPS Alarm			
RMS ID:	0x01	LOGICAL UNIT ID:	0x2e
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	02/10/98	TIME:	23:23:04
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001)	Decimal	
	(01)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 2

RECEIVE TIME (IPS):	02/10/98 23:23:03		
RECEIVE TIME (ADAS):	02/10/98 23:23:03		
SIMULATOR ID:	3		
MESSAGE TYPE:	MPS ALARM		
MESSAGE SIZE:	21		
GROUP ID:	0		
MESSAGE TYPE: MPS Alarm			
RMS ID:	0x01	LOGICAL UNIT ID:	0x2f
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	02/10/98	TIME:	23:23:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001)	Decimal	
	(01)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 3

RECEIVE TIME (IPS): 02/10/98 23:23:03

RECEIVE TIME (ADAS):	02/10/98 23:23:03		
SIMULATOR ID:	3		
MESSAGE TYPE:	MPS ALARM		
MESSAGE SIZE:	21		
GROUP ID:	0		
MESSAGE TYPE: MPS Alarm			
RMS ID:	0x01	LOGICAL UNIT ID:	0x30
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	02/10/98	TIME:	23:23:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001)	Decimal	
	(01)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 4

RECEIVE TIME (IPS):	02/10/98 23:23:03		
RECEIVE TIME (ADAS):	02/10/98 23:23:03		
SIMULATOR ID:	3		
MESSAGE TYPE:	MPS ALARM		
MESSAGE SIZE:	21		
GROUP ID:	0		
MESSAGE TYPE: MPS Alarm			
RMS ID:	0x01	LOGICAL UNIT ID:	0x31
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	02/10/98	TIME:	23:23:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001)	Decimal	
	(01)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 5

RECEIVE TIME (IPS):	02/10/98 23:23:03		
RECEIVE TIME (ADAS):	02/10/98 23:23:03		
SIMULATOR ID:	3		
MESSAGE TYPE:	MPS ALARM		
MESSAGE SIZE:	21		
GROUP ID:	0		
MESSAGE TYPE: MPS Alarm			
RMS ID:	0x01	LOGICAL UNIT ID:	0x32
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	02/10/98	TIME:	23:23:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001)	Decimal	
	(01)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 6

RECEIVE TIME (IPS):	02/10/98 23:23:05
RECEIVE TIME (ADAS):	02/10/98 23:23:05
SIMULATOR ID:	3
MESSAGE TYPE:	MPS ALARM
MESSAGE SIZE:	21

GROUP ID: 0
MESSAGE TYPE: MPS Alarm

RMS ID:	0x01	LOGICAL UNIT ID:	0x33
DELIMITER:	0x00	MESSAGE FUNCTION:	41
DATE:	02/10/98	TIME:	23:23:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x42
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(001)	Decimal	
	(01)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 1

RECEIVE TIME (IPS): 02/10/98 23:24:03
RECEIVE TIME (ADAS): 02/10/98 23:24:03
SIMULATOR ID: 3
MESSAGE TYPE: MPS_RTN_NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2e
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	02/10/98	TIME:	23:24:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002)	Decimal	
	(02)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 2

RECEIVE TIME (IPS): 02/10/98 23:24:04
RECEIVE TIME (ADAS): 02/10/98 23:24:04
SIMULATOR ID: 3
MESSAGE TYPE: MPS RTN NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x2f
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	02/10/98	TIME:	23:24:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002)	Decimal	
	(02)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 3

RECEIVE TIME (IPS): 02/10/98 23:24:04
RECEIVE TIME (ADAS): 02/10/98 23:24:04
SIMULATOR ID: 3
MESSAGE TYPE: MPS RTN NORMAL
MESSAGE SIZE: 21
GROUP ID: 0
MESSAGE TYPE: MPS Return to Normal

RMS ID:	0x01	LOGICAL UNIT ID:	0x30
DELIMITER:	0x00	MESSAGE FUNCTION:	42

DATE:	02/10/98	TIME:	23:24:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002)	Decimal	
	(02)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 4

RECEIVE TIME (IPS):	02/10/98 23:24:04		
RECEIVE TIME (ADAS):	02/10/98 23:24:04		
SIMULATOR ID:	3		
MESSAGE TYPE:	MPS RTN NORMAL		
MESSAGE SIZE:	21		
GROUP ID:	0		
MESSAGE TYPE: MPS Return to Normal			
RMS ID:	0x01	LOGICAL UNIT ID:	0x31
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	02/10/98	TIME:	23:24:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002)	Decimal	
	(02)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 5

RECEIVE TIME (IPS):	02/10/98 23:24:04		
RECEIVE TIME (ADAS):	02/10/98 23:24:04		
SIMULATOR ID:	3		
MESSAGE TYPE:	MPS RTN NORMAL		
MESSAGE SIZE:	21		
GROUP ID:	0		
MESSAGE TYPE: MPS Return to Normal			
RMS ID:	0x01	LOGICAL UNIT ID:	0x32
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	02/10/98	TIME:	23:24:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002)	Decimal	
	(02)	Hex	
	( )	Ascii	

INPUT MESSAGE #: 6

RECEIVE TIME (IPS):	02/10/98 23:24:05		
RECEIVE TIME (ADAS):	02/10/98 23:24:05		
SIMULATOR ID:	3		
MESSAGE TYPE:	MPS RTN NORMAL		
MESSAGE SIZE:	21		
GROUP ID:	0		
MESSAGE TYPE: MPS Return to Normal			
RMS ID:	0x01	LOGICAL UNIT ID:	0x33
DELIMITER:	0x00	MESSAGE FUNCTION:	42
DATE:	02/10/98	TIME:	23:24:05
DATAPOINT ID:	0x01	CONDITION STATUS:	0x40
DATA TYPE:	0x01	RESOLUTION:	0x00
PARAMETER VALUE:	(002)	Decimal	

(02) Hex
( ) Ascii

#####FILE: /usr/ips/aldars/tst/IT-01/IT-01E.I6LDD # Feb 10 @ 23:33:20
-rw-rw-r-- 1 aldars adasteam 17642 Feb 10 23:30 IT-01E.I6LDD
#####START of file framing line #####
INPUT MESSAGE LOG - TEST ID: IT-01 VERS: 1

INPUT MESSAGE #: 1 RECEIVE (IPS): 02/10/98 23:19:15 (ADAS): 02/10/98 23:19:15
INPUT MESSAGE #: 2 RECEIVE (IPS): 02/10/98 23:19:21 (ADAS): 02/10/98 23:19:21
INPUT MESSAGE #: 3 RECEIVE (IPS): 02/10/98 23:19:27 (ADAS): 02/10/98 23:19:27
INPUT MESSAGE #: 4 RECEIVE (IPS): 02/10/98 23:19:33 (ADAS): 02/10/98 23:19:33
INPUT MESSAGE #: 5 RECEIVE (IPS): 02/10/98 23:19:38 (ADAS): 02/10/98 23:19:38
INPUT MESSAGE #: 6 RECEIVE (IPS): 02/10/98 23:19:44 (ADAS): 02/10/98 23:19:44
INPUT MESSAGE #: 7 RECEIVE (IPS): 02/10/98 23:19:49 (ADAS): 02/10/98 23:19:49
INPUT MESSAGE #: 8 RECEIVE (IPS): 02/10/98 23:19:55 (ADAS): 02/10/98 23:19:55
INPUT MESSAGE #: 9 RECEIVE (IPS): 02/10/98 23:20:01 (ADAS): 02/10/98 23:20:01
INPUT MESSAGE #: 10 RECEIVE (IPS): 02/10/98 23:20:05 (ADAS): 02/10/98 23:20:05
INPUT MESSAGE #: 11 RECEIVE (IPS): 02/10/98 23:20:13 (ADAS): 02/10/98 23:20:13
INPUT MESSAGE #: 12 RECEIVE (IPS): 02/10/98 23:20:18 (ADAS): 02/10/98 23:20:18
INPUT MESSAGE #: 13 RECEIVE (IPS): 02/10/98 23:20:25 (ADAS): 02/10/98 23:20:25
INPUT MESSAGE #: 14 RECEIVE (IPS): 02/10/98 23:20:29 (ADAS): 02/10/98 23:20:29
INPUT MESSAGE #: 15 RECEIVE (IPS): 02/10/98 23:20:34 (ADAS): 02/10/98 23:20:34
INPUT MESSAGE #: 16 RECEIVE (IPS): 02/10/98 23:20:40 (ADAS): 02/10/98 23:20:40
INPUT MESSAGE #: 17 RECEIVE (IPS): 02/10/98 23:20:45 (ADAS): 02/10/98 23:20:45
INPUT MESSAGE #: 18 RECEIVE (IPS): 02/10/98 23:20:51 (ADAS): 02/10/98 23:20:51
INPUT MESSAGE #: 19 RECEIVE (IPS): 02/10/98 23:20:56 (ADAS): 02/10/98 23:20:56
INPUT MESSAGE #: 20 RECEIVE (IPS): 02/10/98 23:21:03 (ADAS): 02/10/98 23:21:03
INPUT MESSAGE #: 21 RECEIVE (IPS): 02/10/98 23:21:09 (ADAS): 02/10/98 23:21:09
INPUT MESSAGE #: 22 RECEIVE (IPS): 02/10/98 23:21:11 (ADAS): 02/10/98 23:21:11
INPUT MESSAGE #: 23 RECEIVE (IPS): 02/10/98 23:21:16 (ADAS): 02/10/98 23:21:16
INPUT MESSAGE #: 24 RECEIVE (IPS): 02/10/98 23:21:22 (ADAS): 02/10/98 23:21:22
INPUT MESSAGE #: 25 RECEIVE (IPS): 02/10/98 23:21:27 (ADAS): 02/10/98 23:21:27

INPUT MESSAGE #: 26 RECEIVE (IPS): 02/10/98 23:21:34 (ADAS): 02/10/98 23:21:34
INPUT MESSAGE #: 27 RECEIVE (IPS): 02/10/98 23:21:38 (ADAS): 02/10/98 23:21:38
INPUT MESSAGE #: 28 RECEIVE (IPS): 02/10/98 23:21:44 (ADAS): 02/10/98 23:21:44
INPUT MESSAGE #: 29 RECEIVE (IPS): 02/10/98 23:21:48 (ADAS): 02/10/98 23:21:48
INPUT MESSAGE #: 30 RECEIVE (IPS): 02/10/98 23:21:54 (ADAS): 02/10/98 23:21:54
INPUT MESSAGE #: 31 RECEIVE (IPS): 02/10/98 23:22:00 (ADAS): 02/10/98 23:22:00
INPUT MESSAGE #: 32 RECEIVE (IPS): 02/10/98 23:22:05 (ADAS): 02/10/98 23:22:05
INPUT MESSAGE #: 33 RECEIVE (IPS): 02/10/98 23:22:11 (ADAS): 02/10/98 23:22:11
INPUT MESSAGE #: 34 RECEIVE (IPS): 02/10/98 23:22:17 (ADAS): 02/10/98 23:22:17
INPUT MESSAGE #: 35 RECEIVE (IPS): 02/10/98 23:22:22 (ADAS): 02/10/98 23:22:22
INPUT MESSAGE #: 36 RECEIVE (IPS): 02/10/98 23:22:28 (ADAS): 02/10/98 23:22:28

INPUT MESSAGE #: 37 RECEIVE (IPS): 02/10/98 23:23:46 (ADAS): 02/10/98 23:23:46
INPUT MESSAGE #: 38 RECEIVE (IPS): 02/10/98 23:23:50 (ADAS): 02/10/98 23:23:50
INPUT MESSAGE #: 39 RECEIVE (IPS): 02/10/98 23:23:56 (ADAS): 02/10/98 23:23:56
INPUT MESSAGE #: 40 RECEIVE (IPS): 02/10/98 23:24:02 (ADAS): 02/10/98 23:24:02
INPUT MESSAGE #: 41 RECEIVE (IPS): 02/10/98 23:24:08 (ADAS): 02/10/98 23:24:08
INPUT MESSAGE #: 42 RECEIVE (IPS): 02/10/98 23:24:11 (ADAS): 02/10/98 23:24:11
INPUT MESSAGE #: 43 RECEIVE (IPS): 02/10/98 23:24:16 (ADAS): 02/10/98 23:24:16
INPUT MESSAGE #: 44 RECEIVE (IPS): 02/10/98 23:24:22 (ADAS): 02/10/98 23:24:22
INPUT MESSAGE #: 45 RECEIVE (IPS): 02/10/98 23:24:27 (ADAS): 02/10/98 23:24:27
INPUT MESSAGE #: 46 RECEIVE (IPS): 02/10/98 23:24:33 (ADAS): 02/10/98 23:24:33
INPUT MESSAGE #: 47 RECEIVE (IPS): 02/10/98 23:24:39 (ADAS): 02/10/98 23:24:39
INPUT MESSAGE #: 48 RECEIVE (IPS): 02/10/98 23:24:44 (ADAS): 02/10/98 23:24:44
INPUT MESSAGE #: 49 RECEIVE (IPS): 02/10/98 23:24:50 (ADAS): 02/10/98 23:24:50
INPUT MESSAGE #: 50 RECEIVE (IPS): 02/10/98 23:24:55 (ADAS): 02/10/98 23:24:55
INPUT MESSAGE #: 51 RECEIVE (IPS): 02/10/98 23:25:01 (ADAS): 02/10/98 23:25:01
INPUT MESSAGE #: 52 RECEIVE (IPS): 02/10/98 23:25:08 (ADAS): 02/10/98 23:25:08
INPUT MESSAGE #: 53 RECEIVE (IPS): 02/10/98 23:25:10 (ADAS): 02/10/98 23:25:10

INPUT MESSAGE #: 54 RECEIVE (IPS): 02/10/98 23:25:16 (ADAS): 02/10/98 23:25:16
INPUT MESSAGE #: 55 RECEIVE (IPS): 02/10/98 23:25:20 (ADAS): 02/10/98 23:25:20
INPUT MESSAGE #: 56 RECEIVE (IPS): 02/10/98 23:25:26 (ADAS): 02/10/98 23:25:26
INPUT MESSAGE #: 57 RECEIVE (IPS): 02/10/98 23:25:31 (ADAS): 02/10/98 23:25:31
INPUT MESSAGE #: 58 RECEIVE (IPS): 02/10/98 23:25:38 (ADAS): 02/10/98 23:25:38
INPUT MESSAGE #: 59 RECEIVE (IPS): 02/10/98 23:25:43 (ADAS): 02/10/98 23:25:43
INPUT MESSAGE #: 60 RECEIVE (IPS): 02/10/98 23:25:49 (ADAS): 02/10/98 23:25:49
INPUT MESSAGE #: 61 RECEIVE (IPS): 02/10/98 23:25:55 (ADAS): 02/10/98 23:25:55
INPUT MESSAGE #: 62 RECEIVE (IPS): 02/10/98 23:26:00 (ADAS): 02/10/98 23:26:00
INPUT MESSAGE #: 63 RECEIVE (IPS): 02/10/98 23:26:06 (ADAS): 02/10/98 23:26:06
INPUT MESSAGE #: 64 RECEIVE (IPS): 02/10/98 23:26:10 (ADAS): 02/10/98 23:26:10
INPUT MESSAGE #: 65 RECEIVE (IPS): 02/10/98 23:26:16 (ADAS): 02/10/98 23:26:16
INPUT MESSAGE #: 66 RECEIVE (IPS): 02/10/98 23:26:21 (ADAS): 02/10/98 23:26:21
INPUT MESSAGE #: 67 RECEIVE (IPS): 02/10/98 23:26:27 (ADAS): 02/10/98 23:26:27
INPUT MESSAGE #: 68 RECEIVE (IPS): 02/10/98 23:26:32 (ADAS): 02/10/98 23:26:32
INPUT MESSAGE #: 69 RECEIVE (IPS): 02/10/98 23:26:39 (ADAS): 02/10/98 23:26:39

C.5.1.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IT-01.TCF".

TEST # **IT-01** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 18:02 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter '**cap_itd IT-01**'	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars' prompt: enter '**si**'.	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter '**cl 51**'	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **enter 'isi'**, then '**test12**'	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "IT-01" w/ RETRY set to YES. @ISC: "**[F8] [F7] IT-01 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter '**sa clean**'	The ADAS cold starts with all logs cleared.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by the IPS, login, report event type 61 entries, logout, then ack the IPS prompt. @ISI: "**{wait} <2:[F14]> [F6] {wait} [F7]**" @ASC: "**si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 61 [RTN] {wait} <3:[F14]> [SP] [RTN]**" @ISC: "**[F7]**"	The event is displayed at the ISI. The PC captures the report output(s). The event window closes.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
10.	After the test terminates, shutdown ADAS. @ISI: "**{wait} [F7] <2:[F14]>**" @AUC: "**stop_adas [RTN]**"	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS DATA RESPONSE to file. @ISC: "**[F7] [F8] [F7] IT-01 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	Output the IML: MPS ALARM to file. @ISC: "**[F7] IT-01 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
13.	Output the IML: MPS RETURN TO NORMAL to file. @ISC: "**[F7] IT-01 <2:[RTN]> [SP] [RTN] M <3:[DOWN]> <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **IT-01** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 18:02 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
14.	Output the IML: DLP AWOS LOG DATA to file. @ISC: "**[F7] IT-01 <2:[RTN]> [SP] [RTN] [RIGHT] <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
15.	Output the IML: ITWS 6 AWOS LOG DATA to file. @ISC: "**[F7] IT-01 <2:[RTN]> [SP] [RTN] <11:I> <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
16.	Output the IML: ITWS 6 LDD LOG DATA to file. @ISC: "**[F7] IT-01 <2:[RTN]> [SP] [RTN] <12:I> <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
17.	@Patch Panel: verify the LOG is redirected to PC.	A cable redirects the IPS LOG to the PC.	**[X]** Pass **[ ]** Fail	Redo Step
18.	Issue the command to Shutdown IPS. @ISC: "**<2:[F14]> [F8] [F10] [SP] [RTN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
19.	After the IPS data is output, close procomm. @PC: "**[ALT-F1] [ALT-X]**"	Procomm closes, the data is captured into the file IT-01.itd.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.5.2. TEST IT-02 - DLP / ITWS / WARP Buffering

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.5.2.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IT-02.)
b.	[XX]	[ ]	Inspect messages arriving at the WARP simulator, as in CR1-1 CR1-2 & CR1-3, to see that the increasing AWOS message traffic caused multiple AWOS messages to be delivered in single ADU, as in CR2-1 CR2-2 & CR2-3.
c.	[XX]	[ ]	Inspect messages arriving at the DLP simulator, as in CR3-1 CR3-2 & CR3-3, to see that the increasing AWOS message traffic caused multiple AWOS messages to be delivered in single ADU, as in CR4-1 CR4-2 & CR4-3.
d.	[XX]	[ ]	Inspect messages arriving at the ITWS simulators, as in CR5-A1:F1 CR5-A2:F2 & CR5-A3:F3, to see that the increasing AWOS message traffic caused multiple AWOS messages to be delivered in single ADU, as in CR6-A1:F1 CR6-A2:F2 & CR6-A3:F3.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IT-02's Test Conduct Form (TCF) file, "IT-02.TCF".

```
## New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 18:53:04 - (ADAS): 08/18/9718:53:04 | msgs 3
Hdr: Sim-2 | ADU size: 209 | Type: DLP Awos | OMO's = 3
 K002 K003 K001

## New ADU ## INPUT MESSAGE #: 9
ADU#: 9 | TIME - (IPS): 08/18/97 19:01:05 - (ADAS): 08/18/9719:01:05 | msgs 27
Hdr: Sim-2 | ADU size: 1865 | Type: DLP Awos | OMO's = 27
 K004 K010 K002 K008 K001 K011 K006 K012 K003 K007 K027 K009 K019 K005 K025
 K022 K015 K020 K026 K023 K016 K017 K013 K024 K018 K014 K021

## New ADU ## INPUT MESSAGE #: 10
```

ADU#: 10 | TIME - (IPS): 08/18/97 19:02:06 - (ADAS): 08/18/9719:02:06 | msgs 30
Hdr: Sim-2 | ADU size: 2072 | Type: DLP Awos | OMO's = 30
K002 K005 K004 K010 K020 K008 K011 K003 K017 K006 K012 K001 K022 K015 K018
K007 K027 K009 K023 K016 K029 K028 K024 K013 K019 K030 K025 K021 K014 K026

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 18:53:14 - (ADAS): 08/18/9718:53:14 | msgs 3
Hdr: Sim-6 | ADU size: 254 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 9
ADU#: 9 | TIME - (IPS): 08/18/97 19:01:13 - (ADAS): 08/18/9719:01:13 | msgs 27
Hdr: Sim-6 | ADU size: 1910 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x1b
K004 K010 K002 K008 K001 K011 K006 K012 K003 K007 K027 K009 K019 K005 K025
K022 K015 K020 K026 K023 K016 K017 K013 K024 K018 K014 K021

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:02:13 - (ADAS): 08/18/9719:02:13 | msgs 30
Hdr: Sim-6 | ADU size: 2117 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x1e
K002 K005 K004 K010 K020 K008 K011 K003 K017 K006 K012 K001 K022 K015 K018
K007 K027 K009 K023 K016 K029 K028 K024 K013 K019 K030 K025 K021 K014 K026

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 18:53:14 - (ADAS): 08/18/9718:53:14 | msgs 3
Hdr: Sim-7 | ADU size: 254 | Type: ITWS2 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 9
ADU#: 9 | TIME - (IPS): 08/18/97 19:01:13 - (ADAS): 08/18/9719:01:13 | msgs 27
Hdr: Sim-7 | ADU size: 1910 | Type: ITWS2 Awos | ID: KACY | OMO's = 0x1b
K004 K010 K002 K008 K001 K011 K006 K012 K003 K007 K027 K009 K019 K005 K025
K022 K015 K020 K026 K023 K016 K017 K013 K024 K018 K014 K021

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:02:16 - (ADAS): 08/18/9719:02:16 | msgs 30
Hdr: Sim-7 | ADU size: 2117 | Type: ITWS2 Awos | ID: KACY | OMO's = 0x1e
K002 K005 K004 K010 K020 K008 K011 K003 K017 K006 K012 K001 K022 K015 K018
K007 K027 K009 K023 K016 K029 K028 K024 K013 K019 K030 K025 K021 K014 K026

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 18:53:14 - (ADAS): 08/18/9718:53:14 | msgs 3
Hdr: Sim-8 | ADU size: 254 | Type: ITWS3 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 9
ADU#: 9 | TIME - (IPS): 08/18/97 19:01:14 - (ADAS): 08/18/9719:01:14 | msgs 27
Hdr: Sim-8 | ADU size: 1910 | Type: ITWS3 Awos | ID: KACY | OMO's = 0x1b
K004 K010 K002 K008 K001 K011 K006 K012 K003 K007 K027 K009 K019 K005 K025
K022 K015 K020 K026 K023 K016 K017 K013 K024 K018 K014 K021

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:02:14 - (ADAS): 08/18/9719:02:14 | msgs 30
Hdr: Sim-8 | ADU size: 2117 | Type: ITWS3 Awos | ID: KACY | OMO's = 0x1e
K002 K005 K004 K010 K020 K008 K011 K003 K017 K006 K012 K001 K022 K015 K018

K007 K027 K009 K023 K016 K029 K028 K024 K013 K019 K030 K025 K021 K014 K026

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 18:53:14 - (ADAS): 08/18/9718:53:14 | msgs 3
Hdr: Sim-9 | ADU size: 254 | Type: ITWS4 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 9
ADU#: 9 | TIME - (IPS): 08/18/97 19:01:15 - (ADAS): 08/18/9719:01:15 | msgs 27
Hdr: Sim-9 | ADU size: 1910 | Type: ITWS4 Awos | ID: KACY | OMO's = 0x1b
K004 K010 K002 K008 K001 K011 K006 K012 K003 K007 K027 K009 K019 K005 K025
K022 K015 K020 K026 K023 K016 K017 K013 K024 K018 K014 K021

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:02:14 - (ADAS): 08/18/9719:02:14 | msgs 30
Hdr: Sim-9 | ADU size: 2117 | Type: ITWS4 Awos | ID: KACY | OMO's = 0x1e
K002 K005 K004 K010 K020 K008 K011 K003 K017 K006 K012 K001 K022 K015 K018
K007 K027 K009 K023 K016 K029 K028 K024 K013 K019 K030 K025 K021 K014 K026

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 18:53:14 - (ADAS): 08/18/9718:53:14 | msgs 3
Hdr: Sim-10 | ADU size: 254 | Type: ITWS5 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 9
ADU#: 9 | TIME - (IPS): 08/18/97 19:01:16 - (ADAS): 08/18/9719:01:16 | msgs 27
Hdr: Sim-10 | ADU size: 1910 | Type: ITWS5 Awos | ID: KACY | OMO's = 0x1b
K004 K010 K002 K008 K001 K011 K006 K012 K003 K007 K027 K009 K019 K005 K025
K022 K015 K020 K026 K023 K016 K017 K013 K024 K018 K014 K021

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:02:15 - (ADAS): 08/18/9719:02:15 | msgs 30
Hdr: Sim-10 | ADU size: 2117 | Type: ITWS5 Awos | ID: KACY | OMO's = 0x1e
K002 K005 K004 K010 K020 K008 K011 K003 K017 K006 K012 K001 K022 K015 K018
K007 K027 K009 K023 K016 K029 K028 K024 K013 K019 K030 K025 K021 K014 K026

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 18:53:14 - (ADAS): 08/18/9718:53:14 | msgs 3
Hdr: Sim-11 | ADU size: 254 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 9
ADU#: 9 | TIME - (IPS): 08/18/97 19:01:16 - (ADAS): 08/18/9719:01:16 | msgs 27
Hdr: Sim-11 | ADU size: 1910 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x1b
K004 K010 K002 K008 K001 K011 K006 K012 K003 K007 K027 K009 K019 K005 K025
K022 K015 K020 K026 K023 K016 K017 K013 K024 K018 K014 K021

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:02:16 - (ADAS): 08/18/9719:02:16 | msgs 30
Hdr: Sim-11 | ADU size: 2117 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x1e
K002 K005 K004 K010 K020 K008 K011 K003 K017 K006 K012 K001 K022 K015 K018
K007 K027 K009 K023 K016 K029 K028 K024 K013 K019 K030 K025 K021 K014 K026

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 18:53:04 - (ADAS): 08/18/9718:53:04 | msgs 3

Hdr: Sim-4 | ADU size: 209 | Type: RWP Awos | OMO's = 3
K002 K003 K001

New ADU ## INPUT MESSAGE #: 9
ADU#: 9 | TIME - (IPS): 08/18/97 19:01:06 - (ADAS): 08/18/9719:01:06 | msgs 27
Hdr: Sim-4 | ADU size: 1865 | Type: RWP Awos | OMO's = 27
K004 K010 K002 K008 K001 K011 K006 K012 K003 K007 K027 K009 K019 K005 K025
K022 K015 K020 K026 K023 K016 K017 K013 K024 K018 K014 K021

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:02:06 - (ADAS): 08/18/9719:02:06 | msgs 30
Hdr: Sim-4 | ADU size: 2072 | Type: RWP Awos | OMO's = 30
K002 K005 K004 K010 K020 K008 K011 K003 K017 K006 K012 K001 K022 K015 K018
K007 K027 K009 K023 K016 K029 K028 K024 K013 K019 K030 K025 K021 K014 K026

C.5.2.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IT-02.TCF".

TEST # **IT-02** TESTED BY: ____ Jock K. Stratton ____ DATE: 18/AUG/97 TIME: 18:48 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS LOG port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter '**cap_itd IT-02**'	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 48**"	AUC Displays: Config 48 loaded.	[X] Pass [ ] Fail	Stop Test
6.	"**isi**" @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "IT-02" w/ RETRY set to "YES". @ISC: "**[F8] [F7] IT-02 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC: "**sa [SP] clean [RTN]**"	All datastores are removed. The ADAS is started.	[X] Pass [ ] Fail	Stop Test
9.	When the IPS test terminates, shutdown ADAS. @ISI: "**{wait} <2:[F14]> [F6] {wait} [F7] <2:[F14]>**" @AUC: "**stop_adas [RTN]**"	The 'Test Started' and 'Test Termination' response windows are displayed & closed, then ISI default screen is displayed. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
10.	Output the IML: DLP AWOS to file. @ISC: "**[F7] [F8] [F7] IT-02 <2:[RTN]> [SP] [RTN] D <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: ITWS1 AWOS to file. @ISC: "**[F7] IT-02 <2:[RTN]> [SP] [RTN] I <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	Output the IML: ITWS2 AWOS to file. @ISC: "**[F7] IT-02 <2:[RTN]> [SP] [RTN] III <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **IT-02** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 18:48 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	Output the IML: ITWS3 AWOS to file. @ISC: **"[F7] IT-02 <2:[RTN]> [SP] [RTN] IIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
14.	Output the IML: ITWS4 AWOS to file. @ISC: **"[F7] IT-02 <2:[RTN]> [SP] [RTN] IIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
15.	Output the IML: ITWS5 AWOS to file. @ISC: **"[F7] IT-02 <2:[RTN]> [SP] [RTN] IIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
16.	Output the IML: ITWS6 AWOS to file. @ISC: **"[F7] IT-02 <2:[RTN]> [SP] [RTN] IIIIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
17.	Output the IML: WARP AWOS to file. @ISC: **"[F7] IT-02 <2:[RTN]> [SP] [RTN] R <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
18.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the IPS LOG port's top socket to the PSF-PC port's socket.	**[X]** Pass [ ] Fail	Stop Test
19.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
20.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.5.3. TEST IT-03 - DLP / ITWS / WARP Variable Length Messages

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.5.3.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IT-03.)
a.	[XX]	[ ]	Inspect the data reduction summary of messages arriving at the DLP, as in CR1, at the ITWS, as in CR5, CR6, CR7, CR8, CR9, & CR10, WARP, as in CR2, simulators to see that the increasing AWOS message traffic caused multiple variable length AWOS messages to be delivered in single ADU.
b.	[XX]	[ ]	Individual AWOS messages should be unchanged and complete. Type 1, as in CR3, contains remarks. Type 2, as in CR4, contains longer remarks.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IT-03's Test Conduct Form (TCF) file, "IT-03.TCF".

```
## New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 19:36:04 - (ADAS): 08/18/9719:36:04
Hdr: Sim-2 | ADU size: 318 | Type: DLP Awos | OMO's = 3
AWOS/ASOS ID: K002 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:36:00
AUTOMATED REMARKS:   VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K003 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:36:00
OPERATOR REMARKS:   VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K001 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:36:00
OPERATOR REMARKS:   VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!

## New ADU ## INPUT MESSAGE #: 2
ADU#: 2 | TIME - (IPS): 08/18/97 19:37:04 - (ADAS): 08/18/9719:37:04
Hdr: Sim-2 | ADU size: 614 | Type: DLP Awos | OMO's = 6
AWOS/ASOS ID: K002 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:37:00
AUTOMATED REMARKS:   VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K003 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:37:00
OPERATOR REMARKS:   VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K005 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:37:00
OPERATOR REMARKS:   VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
```

AWOS/ASOS ID: K004 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:37:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K001 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:37:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K006 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:37:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:45:07 - (ADAS): 08/18/9719:45:07
Hdr: Sim-2 | ADU size: 3062 | Type: DLP Awos | OMO's = 30
AWOS/ASOS ID: K004 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K012 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K001 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K009 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K007 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K028 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K022 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K002 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K013 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K010 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K008 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K029 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K025 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K023 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K020 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K003 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K014 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K011 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K030 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K005 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K026 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K024 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K017 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K015 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!

AWOS/ASOS ID: K006 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K027 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K021 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!
AWOS/ASOS ID: K018 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K016 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
AUTOMATED REMARKS: VSBY 100V800 WND 01V08!
AWOS/ASOS ID: K019 | CFG NO: 0000 | DATE:97/08/18 TIME: 19:45:00
OPERATOR REMARKS: VSBY 125V250 WND 26V33 CIG 10V20 BKN V OVC!

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 19:36:14 - (ADAS): 08/18/9719:36:14 | msgs 3
Hdr: Sim-6 | ADU size: 363 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:45:14 - (ADAS): 08/18/9719:45:14 | msgs 30
Hdr: Sim-6 | ADU size: 3107 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x1e
K004 K012 K001 K009 K007 K028 K022 K002 K013 K010 K008 K029 K025 K023 K020
K003 K014 K011 K030 K005 K026 K024 K017 K015 K006 K027 K021 K018 K016 K019

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 19:36:14 - (ADAS): 08/18/9719:36:14 | msgs 3
Hdr: Sim-7 | ADU size: 363 | Type: ITWS2 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:45:16 - (ADAS): 08/18/9719:45:16 | msgs 30
Hdr: Sim-7 | ADU size: 3107 | Type: ITWS2 Awos | ID: KACY | OMO's = 0x1e
K004 K012 K001 K009 K007 K028 K022 K002 K013 K010 K008 K029 K025 K023 K020
K003 K014 K011 K030 K005 K026 K024 K017 K015 K006 K027 K021 K018 K016 K019

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 19:36:14 - (ADAS): 08/18/9719:36:14 | msgs 3
Hdr: Sim-8 | ADU size: 363 | Type: ITWS3 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:45:20 - (ADAS): 08/18/9719:45:20 | msgs 30
Hdr: Sim-8 | ADU size: 3107 | Type: ITWS3 Awos | ID: KACY | OMO's = 0x1e
K004 K012 K001 K009 K007 K028 K022 K002 K013 K010 K008 K029 K025 K023 K020
K003 K014 K011 K030 K005 K026 K024 K017 K015 K006 K027 K021 K018 K016 K019

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 19:36:14 - (ADAS): 08/18/9719:36:14 | msgs 3
Hdr: Sim-9 | ADU size: 363 | Type: ITWS4 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:45:17 - (ADAS): 08/18/9719:45:17 | msgs 30
Hdr: Sim-9 | ADU size: 3107 | Type: ITWS4 Awos | ID: KACY | OMO's = 0x1e

K004 K012 K001 K009 K007 K028 K022 K002 K013 K010 K008 K029 K025 K023 K020
K003 K014 K011 K030 K005 K026 K024 K017 K015 K006 K027 K021 K018 K016 K019

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 19:36:14 - (ADAS): 08/18/9719:36:14 | msgs 3
Hdr: Sim-10 | ADU size: 363 | Type: ITWS5 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:45:18 - (ADAS): 08/18/9719:45:18 | msgs 30
Hdr: Sim-10 | ADU size: 3107 | Type: ITWS5 Awos | ID: KACY | OMO's = 0x1e
K004 K012 K001 K009 K007 K028 K022 K002 K013 K010 K008 K029 K025 K023 K020
K003 K014 K011 K030 K005 K026 K024 K017 K015 K006 K027 K021 K018 K016 K019

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 19:36:14 - (ADAS): 08/18/9719:36:14 | msgs 3
Hdr: Sim-11 | ADU size: 363 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:45:19 - (ADAS): 08/18/9719:45:19 | msgs 30
Hdr: Sim-11 | ADU size: 3107 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x1e
K004 K012 K001 K009 K007 K028 K022 K002 K013 K010 K008 K029 K025 K023 K020
K003 K014 K011 K030 K005 K026 K024 K017 K015 K006 K027 K021 K018 K016 K019

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 19:36:04 - (ADAS): 08/18/9719:36:04 | msgs 3
Hdr: Sim-4 | ADU size: 318 | Type: RWP Awos | OMO's = 3
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 19:45:08 - (ADAS): 08/18/9719:45:08 | msgs 30
Hdr: Sim-4 | ADU size: 3062 | Type: RWP Awos | OMO's = 30
K004 K012 K001 K009 K007 K028 K022 K002 K013 K010 K008 K029 K025 K023 K020
K003 K014 K011 K030 K005 K026 K024 K017 K015 K006 K027 K021 K018 K016 K019

C.5.3.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IT-03.TCF".

TEST # **IT-03** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 19:31 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the IPS LOG port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter '**cap_itd IT-03**'	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 48**"	AUC Displays: Config 48 loaded.	[X] Pass [ ] Fail	Stop Test
6.	"**isi**" @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "IT-03" w/ RETRY set to "YES". @ISC: "**[F8] [F7] IT-03 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC: "**sa [SP] clean [RTN]**"	All datastores are removed. The ADAS is started.	[X] Pass [ ] Fail	Stop Test
9.	When the IPS test terminates, shutdown ADAS. @ISI: "**{wait} <2:[F14]> [F6] {wait} [F7] <2:[F14]>**" @AUC: "**stop_adas [RTN]**"	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
10.	Output the IML: DLP AWOS to file. @ISC: "**[F7] [F8] [F7] IT-03 <2:[RTN]> [SP] [RTN] D <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: ITWS1 AWOS to file. @ISC: "**[F7] IT-03 <2:[RTN]> [SP] [RTN] I <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	Output the IML: ITWS2 AWOS to file. @ISC: "**[F7] IT-03 <2:[RTN]> [SP] [RTN] III <2:[RTN]> {wait} [F14]**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
13.	Output the IML: ITWS3 AWOS to file.	The output file is in directory '/tmp'.	[X] Pass [ ] Fail	Stop Test

TEST # **IT-03** TESTED BY: _____ Jock K. Stratton _____ DATE: 18/AUG/97 TIME: 19:31 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: **"[F7] IT-03 <2:[RTN]> [SP] [RTN] IIIII <2:[RTN]> {wait} [F14]"**	The Select Log Type screen is displayed.		
14.	Output the IML: ITWS4 AWOS to file. @ISC: **"[F7] IT-03 <2:[RTN]> [SP] [RTN] IIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
15.	Output the IML: ITWS5 AWOS to file. @ISC: **"[F7] IT-03 <2:[RTN]> [SP] [RTN] IIIIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
16.	Output the IML: ITWS6 AWOS to file. @ISC: **"[F7] IT-03 <2:[RTN]> [SP] [RTN] IIIIIIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
17.	Output the IML: WARP AWOS to file. @ISC: **"[F7] IT-03 <2:[RTN]> [SP] [RTN] R <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
18.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the LOG port's top socket to the PSF-PC port's socket.	**[X]** Pass **[ ]** Fail	Stop Test
19.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
20.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.5.4. TEST IT-04 - DLP / ITWS / WARP Message Errors

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.5.4.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IT-04.)
b.	[XX]	[ ]	Entries in the IPS Inbound Message log must indicate that the DLP CR1, WARP CR2, and ITWS1:6 CR12:17 simulator received multiple messages in single ADU (Input Message).
c.	[ ]	[XX]	The ADAS logs must indicate that an Error , as in CR3 (56 in all), and Event entry were made for each error message returned to ADAS (7 DLP CR4, 7 WARP CR5, and 7 each (42 total) for ITWS1:6 CR6:11) . Error: Missing CR's 5 through 10 due to IPS sequence error.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IT-04's Test Conduct Form (TCF) file, "IT-04.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-18-97 20:17:05
EVENT SEQ. NUMBER: 918    EVENT TYPE: 21        CSC ID: 11.02
An erroneous message has been triggered by System Logging.

  message type: ADAS received error message
  error type: DLP error message   error code: DLP invalid ADU type rcvd
  original csc id: 4.07  error number: 1
  error offset: 0

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-18-97 20:18:05
EVENT SEQ. NUMBER: 935    EVENT TYPE: 21        CSC ID: 11.02
An erroneous message has been triggered by System Logging.

  message type: ADAS received error message
  error type: DLP error message   error code: DLP invalid ADU type rcvd
  original csc id: 4.07  error number: 2
  error offset: 53

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 08-18-97 20:19:06
```

EVENT SEQ. NUMBER: 951   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 3
error offset: 106

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 20:20:05
EVENT SEQ. NUMBER: 967   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 4
error offset: 159

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 20:21:06
EVENT SEQ. NUMBER: 983   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 5
error offset: 212

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 20:22:06
EVENT SEQ. NUMBER: 999   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 6
error offset: 265

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-18-97 20:23:07
EVENT SEQ. NUMBER: 1015   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 7
error offset: 318

EVENT NUMBER: 918   DATE/TIME STAMP: 08-18-97 20:17:05
ERROR SEQ. NUMBER: 1   CSC ID: 4.07
MESSAGE TYPE: 0
ERROR TYPE: 301   ERROR CODE: 303

8101 0258 5858 5858 5858 5858 5858 5858 5858 5858 5858 58

EVENT NUMBER: 935   DATE/TIME STAMP: 08-18-97 20:18:05
ERROR SEQ. NUMBER: 2   CSC ID: 4.07
MESSAGE TYPE: 0
ERROR TYPE: 301   ERROR CODE: 303

8101 0258 5858 5858 5858 5858 5858 5858 5858 5858 5858 58

EVENT NUMBER: 951 DATE/TIME STAMP: 08-18-97 20:19:06
ERROR SEQ. NUMBER: 3 CSC ID: 4.07
MESSAGE TYPE: 0
ERROR TYPE: 301 ERROR CODE: 303

8101 0258 5858 5858 5858 5858 5858 5858 5858 5858 5858 58

EVENT NUMBER: 967 DATE/TIME STAMP: 08-18-97 20:20:05
ERROR SEQ. NUMBER: 4 CSC ID: 4.07
MESSAGE TYPE: 0
ERROR TYPE: 301 ERROR CODE: 303

8101 0258 5858 5858 5858 5858 5858 5858 5858 5858 5858 58

EVENT NUMBER: 983 DATE/TIME STAMP: 08-18-97 20:21:06
ERROR SEQ. NUMBER: 5 CSC ID: 4.07
MESSAGE TYPE: 0
ERROR TYPE: 301 ERROR CODE: 303

8101 0258 5858 5858 5858 5858 5858 5858 5858 5858 5858 58

EVENT NUMBER: 999 DATE/TIME STAMP: 08-18-97 20:22:06
ERROR SEQ. NUMBER: 6 CSC ID: 4.07
MESSAGE TYPE: 0
ERROR TYPE: 301 ERROR CODE: 303

8101 0258 5858 5858 5858 5858 5858 5858 5858 5858 5858 58

EVENT NUMBER: 1015 DATE/TIME STAMP: 08-18-97 20:23:07
ERROR SEQ. NUMBER: 7 CSC ID: 4.07
MESSAGE TYPE: 0
ERROR TYPE: 301 ERROR CODE: 303

8101 0258 5858 5858 5858 5858 5858 5858 5858 5858 5858 58

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 20:14:05 - (ADAS): 08/18/9720:14:05 | msgs 3
Hdr: Sim-2 | ADU size: 209 | Type: DLP Awos | OMO's = 3
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 20:23:06 - (ADAS): 08/18/9720:23:06 | msgs 30
Hdr: Sim-2 | ADU size: 2072 | Type: DLP Awos | OMO's = 30
K003 K009 K007 K004 K010 K005 K001 K011 K015 K006 K025 K019 K030 K002 K012
K008 K016 K022 K026 K029 K020 K013 K023 K027 K017 K014 K024 K028 K018 K021

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 20:14:14 - (ADAS): 08/18/9720:14:14 | msgs 3
Hdr: Sim-6 | ADU size: 254 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 20:23:14 - (ADAS): 08/18/9720:23:14 | msgs 30
Hdr: Sim-6 | ADU size: 2117 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x1e
K003 K009 K007 K004 K010 K005 K001 K011 K015 K006 K025 K019 K030 K002 K012
K008 K016 K022 K026 K029 K020 K013 K023 K027 K017 K014 K024 K028 K018 K021

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 20:14:14 - (ADAS): 08/18/9720:14:14 | msgs 3
Hdr: Sim-7 | ADU size: 254 | Type: ITWS2 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 20:23:14 - (ADAS): 08/18/9720:23:14 | msgs 30
Hdr: Sim-7 | ADU size: 2117 | Type: ITWS2 Awos | ID: KACY | OMO's = 0x1e
K003 K009 K007 K004 K010 K005 K001 K011 K015 K006 K025 K019 K030 K002 K012
K008 K016 K022 K026 K029 K020 K013 K023 K027 K017 K014 K024 K028 K018 K021

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 20:14:14 - (ADAS): 08/18/9720:14:14 | msgs 3
Hdr: Sim-8 | ADU size: 254 | Type: ITWS3 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 20:23:16 - (ADAS): 08/18/9720:23:16 | msgs 30
Hdr: Sim-8 | ADU size: 2117 | Type: ITWS3 Awos | ID: KACY | OMO's = 0x1e
K003 K009 K007 K004 K010 K005 K001 K011 K015 K006 K025 K019 K030 K002 K012
K008 K016 K022 K026 K029 K020 K013 K023 K027 K017 K014 K024 K028 K018 K021

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 20:14:14 - (ADAS): 08/18/9720:14:14 | msgs 3
Hdr: Sim-9 | ADU size: 254 | Type: ITWS4 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 20:23:17 - (ADAS): 08/18/9720:23:17 | msgs 30
Hdr: Sim-9 | ADU size: 2117 | Type: ITWS4 Awos | ID: KACY | OMO's = 0x1e
K003 K009 K007 K004 K010 K005 K001 K011 K015 K006 K025 K019 K030 K002 K012
K008 K016 K022 K026 K029 K020 K013 K023 K027 K017 K014 K024 K028 K018 K021

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 20:14:14 - (ADAS): 08/18/9720:14:14 | msgs 3
Hdr: Sim-10 | ADU size: 254 | Type: ITWS5 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 20:23:17 - (ADAS): 08/18/9720:23:17 | msgs 30
Hdr: Sim-10 | ADU size: 2117 | Type: ITWS5 Awos | ID: KACY | OMO's = 0x1e
K003 K009 K007 K004 K010 K005 K001 K011 K015 K006 K025 K019 K030 K002 K012
K008 K016 K022 K026 K029 K020 K013 K023 K027 K017 K014 K024 K028 K018 K021

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 20:14:14 - (ADAS): 08/18/9720:14:14 | msgs 3
Hdr: Sim-11 | ADU size: 254 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x03
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 20:23:18 - (ADAS): 08/18/9720:23:18 | msgs 30
Hdr: Sim-11 | ADU size: 2117 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x1e

K003 K009 K007 K004 K010 K005 K001 K011 K015 K006 K025 K019 K030 K002 K012
K008 K016 K022 K026 K029 K020 K013 K023 K027 K017 K014 K024 K028 K018 K021

New ADU ## INPUT MESSAGE #: 1
ADU#: 1 | TIME - (IPS): 08/18/97 20:14:05 - (ADAS): 08/18/9720:14:05 | msgs 3
Hdr: Sim-4 | ADU size: 209 | Type: RWP Awos | OMO's = 3
K002 K003 K001

New ADU ## INPUT MESSAGE #: 10
ADU#: 10 | TIME - (IPS): 08/18/97 20:23:07 - (ADAS): 08/18/9720:23:07 | msgs 30
Hdr: Sim-4 | ADU size: 2072 | Type: RWP Awos | OMO's = 30
K003 K009 K007 K004 K010 K005 K001 K011 K015 K006 K025 K019 K030 K002 K012
K008 K016 K022 K026 K029 K020 K013 K023 K027 K017 K014 K024 K028 K018 K021

C.5.4.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IT-04.TCF".

TEST # **IT-04**   TESTED BY: _____ Jock K. Stratton _____   DATE: 18/AUG/97   TIME: 20:09   TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter **'cap_itd IT-04'**	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 48"**	AUC Displays: Config 48 loaded.	[X] Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "IT-04" w/ RETRY set to "YES". @ISC: **"[F8] [F7] IT-04 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Cold Start the ADAS application. @AUC: **"sa [SP] clean [RTN]"**	All datastores are removed. The ADAS is started.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS, report Event Log event type 21 entries and the Error Log, then acknowledge the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 21 [RTN] {wait} [F13] [F11] [DOWN] <2:[RTN]> 0 <6:[RTN]> {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: DLP AWOS to file. @ISC: **"[F7] [F8] [F7] IT-04 <2:[RTN]> [SP] [RTN] D <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **IT-04**   TESTED BY: _____ Jock K. Stratton _____   DATE: 18/AUG/97   TIME: 20:09   TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
12.	Output the IML: ITWS1 AWOS to file. @ISC: **"[F7] IT-04 <2:[RTN]> [SP] [RTN] I <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
13.	Output the IML: ITWS2 AWOS to file. @ISC: **"[F7] IT-04 <2:[RTN]> [SP] [RTN] III <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
14.	Output the IML: ITWS3 AWOS to file. @ISC: **"[F7] IT-04 <2:[RTN]> [SP] [RTN] IIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	Output the IML: ITWS4 AWOS to file. @ISC: **"[F7] IT-04 <2:[RTN]> [SP] [RTN] IIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
16.	Output the IML: ITWS5 AWOS to file. @ISC: **"[F7] IT-04 <2:[RTN]> [SP] [RTN] IIIIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
17.	Output the IML: ITWS6 AWOS to file. @ISC: **"[F7] IT-04 <2:[RTN]> [SP] [RTN] IIIIIIIIIII <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
18.	Output the IML: WARP AWOS to file. @ISC: **"[F7] IT-04 <2:[RTN]> [SP] [RTN] R <2:[RTN]> {wait}** [F14]"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
19.	@Patch Panel: verify that a patch cable re-directs the IPS LOG output to the PSF-PC for data capture.	A cable patches the LOG port's top socket to the PSF-PC port's socket.	[X] Pass [ ] Fail	Stop Test
20.	Issue the command to Shutdown IPS. @ISC: **"<2:[F14]> [F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
21.	After the data is captured, close procomm. @PC: **"{wait} [ALT-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.5.5 TEST IT-05 - ITWS Interface

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.5.5.1 Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[xx]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results' column is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[XX]	[ ]	*ADAS shall disseminate surface observations to ITWS* CR01 NAS-SS-1000, Section 4.4.1.4, Vol II 3.2.1.5.8.1.4 ISS2-001
c.	[XX]	[ ]	*ADAS shall disseminate AWOS/ASOS Messages in AWOS format to the ITWS once pe minute.* CR02 NAS-SS-1000, Section 4.4.1.4, Vol. II 3.2.1.5.8.2.4-c ISS2-002
d.	[XX]	[ ]	*ADAS shall disseminate current LDD Messages to each ITWS per 5 second.* CR03 NAS-SS-1000, Section 4.4.1.4, Vol. II 3.2.1.5.8.2.4.1-b ISS2-003
e.	[xx]	[ ]	*ADAS shall disseminate data to the ITWS via the NADIN PSN.* CR04 NAS-SS-1000, Section 4.4.1.4, Vol. II Figure 3.2.1.5.8.3-F1 ISS2-004
f.	[XX]	[ ]	*ADAS shall disseminate current LDD Messages to ITWS at rate of 216 bits, 667 times/minute.* CR05 NAS-SS-1000, Section 4.4.1.4, Vol. II Table 3.2.1.5.8.3-T111 ISS2-005
g.	[xx]	[ ]	*ADAS shall disseminate data Current AWOS/ASOS surface Weather Observation Messages to ITWS at rate of 1.6KB, 137 times/minute.* CR06 NAS-SS-1000, Section 4.4.1.4, Vol. II Table 3.2.1.5.8.3-T112 ISS2-006

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into test IT-05's Test Conduct Form (TCF) file, "IT-05.TCF".

DATA EXTRACTED FROM IPS FILE

....
..
. 09-23-97 13:02:33 . Events: 1 . Responses: 0 . Message Output Cmds
.
....
..

DISPLAY INPUT MESSAGE LOG

INPUT MESSAGE: 2 CR01

RECEIVE TIME (IPS): 09/23/97 12:46:17 CR02
RECEIVE TIME (ADAS):09/23/97 12:46:17
SIMULATOR ID: 6
MESSAGE TYPE: ITWS1.AWOS.MSG
MESSAGE SIZE: 3497 <--------->CR06
GROUP ID: 18

HEX DUMP OF TEST FILE:

```
01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4f 4d 55 53
32 37 20 4b 41 43 59 20 32 33 31 32 34 36 20 00 00 00 0d 0d
0a 00 32 44 4b 30 31 31 00 00 61 09 17 0c 2e 00 00 00 00 00
00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05
0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 30 38 00 00 61
09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00
00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff
00 44 4b 30 30 33 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00
00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b
b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 ff ff 00 44 4b 30 31 32 00 00 61 09 17
0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00
00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44
4b 30 30 35 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00
00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00
27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 ff ff 00 44 4b 30 30 34 00 00 61 09 17 0c 2e
00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00
ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30
30 39 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02
bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10
01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 ff ff 00 44 4b 30 32 36 00 00 61 09 17 0c 2e 00 00
00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e
04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 31 35
00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00
00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 ff ff 00 44 4b 30 30 36 00 00 61 09 17 0c 2e 00 00 00 00
00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04
05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 32 30 00 00
61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00
00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00
```

```
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff
ff 00 44 4b 30 30 31 00 00 61 09 17 0c 2e 00 00 00 00 00 00
00 00 00 00 02 bc 00 00 00 00 00 00 00 ac 8e 04 04 05 0f
0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 33 30 00 00 61 09
17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00
00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00
44 4b 30 32 34 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00
00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6
00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 ff ff 00 44 4b 30 31 30 00 00 61 09 17 0c
2e 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00
00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b
30 32 37 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00
02 bc 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27
10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 ff ff 00 44 4b 30 30 37 00 00 61 09 17 0c 2e 00
00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac
8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 31
37 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 02 bc
00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01
1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 ff ff 00 44 4b 30 30 32 00 00 61 09 17 0c 2e 00 00 00
00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 ac 8e 04
04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 33 31 00
00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00
00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
ff ff 00 44 4b 30 31 36 00 00 61 09 17 0c 2e 00 00 00 00 00
00 00 00 00 00 02 bc 00 00 00 00 00 00 00 ac 8e 04 04 05
0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 32 31 00 00 61
09 17 0c 2e 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00
00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff
00 44 4b 30 32 38 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00
00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b
b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 ff ff 00 44 4b 30 35 30 00 00 61 09 17
0c 2e 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00
00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44
4b 30 31 38 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00
00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00
27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 ff ff 00 44 4b 30 34 37 00 00 61 09 17 0c 2e
00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00
ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30
31 33 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 02
bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10
01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 ff ff 00 44 4b 30 33 32 00 00 61 09 17 0c 2e 00 00
00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e
```

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04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 32 32
00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00
00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 ff ff 00 44 4b 30 32 35 00 00 61 09 17 0c 2e 00 00 00 00
00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04
05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 31 39 00 00
61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00
00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff
ff 00 44 4b 30 31 34 00 00 61 09 17 0c 2e 00 00 00 00 00 00
00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f
0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 32 39 00 00 61 09
17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00
00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00
44 4b 30 34 30 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00
00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6
00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 ff ff 00 44 4b 30 32 33 00 00 61 09 17 0c
2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00
00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b
30 33 33 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00
02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27
10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 ff ff 00 44 4b 30 34 39 00 00 61 09 17 0c 2e 00
00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac
8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 34
34 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc
00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01
1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 ff ff 00 44 4b 30 33 37 00 00 61 09 17 0c 2e 00 00 00
00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04
04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 33 34 00
00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00
00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
ff ff 00 44 4b 30 34 31 00 00 61 09 17 0c 2e 00 00 00 00 00
00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05
0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 33 35 00 00 61
09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00
00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff
00 44 4b 30 33 38 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00
00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b
b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 ff ff 00 44 4b 30 34 32 00 00 61 09 17
0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00
00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44
4b 30 33 36 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00
```

```
00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00
27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 ff ff 00 44 4b 30 34 38 00 00 61 09 17 0c 2e
00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00
ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30
33 39 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02
bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10
01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 ff ff 00 44 4b 30 34 33 00 00 61 09 17 0c 2e 00 00
00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e
04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 34 35
00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00
00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 ff ff 00 44 4b 30 34 36 00 00 61 09 17 0c 2e 00 00 00 00
00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04
05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 ff ff 00 0d 0d 0a 03
```

. 09-23-97 13:09:39 . Events: 1 . Responses: 0 . Message Output Cmds

DISPLAY INPUT MESSAGE LOG

INPUT MESSAGE: 16 CR01 CR03

RECEIVE TIME (IPS): 09/23/97 12:46:08
RECEIVE TIME (ADAS):09/23/97 12:46:08
SIMULATOR ID: 6
MESSAGE TYPE: ITWS1.LDD.MSG
MESSAGE SIZE: 82 <------> CR05
GROUP ID: 16

HEX DUMP OF TEST FILE:

```
01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4c 44 55 53
32 37 20 4b 41 43 59 20 32 33 31 32 34 36 20 00 00 00 0d 0d
0a 00 07 04 4c cb 20 32 04 4d cb 20 32 04 4e cb 20 32 04 4f
cb 20 32 04 50 cb 20 32 04 51 cb 20 32 04 52 cb 20 32 0d 0d
0a 03
```

. 09-23-97 13:12:06 . Events: 1 . Responses: 0 . Message Output Cmds

DISPLAY INPUT MESSAGE LOG

INPUT MESSAGE: 2 CR01 CR02

RECEIVE TIME (IPS): 09/23/97 12:46:15
RECEIVE TIME (ADAS):09/23/97 12:46:15
SIMULATOR ID: 11
MESSAGE TYPE: ITWS6.AWOS.MSG
MESSAGE SIZE: 3497 <------> CR06
GROUP ID: 18

HEX DUMP OF TEST FILE:

01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4f 4d 55 53
32 37 20 4b 41 43 59 20 32 33 31 32 34 36 20 00 00 00 0d 0d
0a 00 32 44 4b 30 31 31 00 00 61 09 17 0c 2e 00 00 00 00 00
00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05
0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 30 38 00 00 61
09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00
00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff
00 44 4b 30 30 33 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00
00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b
b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 ff ff 00 44 4b 30 31 32 00 00 61 09 17
0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00
00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44
4b 30 30 35 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00
00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00
27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 ff ff 00 44 4b 30 30 34 00 00 61 09 17 0c 2e
00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00
ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30
30 39 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02
bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10
01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 ff ff 00 44 4b 30 32 36 00 00 61 09 17 0c 2e 00 00
00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e
04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 31 35
00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00
00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 ff ff 00 44 4b 30 30 36 00 00 61 09 17 0c 2e 00 00 00 00
00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04
05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 32 30 00 00
61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00
00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff
ff 00 44 4b 30 30 31 00 00 61 09 17 0c 2e 00 00 00 00 00 00
00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f
0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 33 30 00 00 61 09
17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00
00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00
44 4b 30 32 34 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00
00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6

```
00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 ff ff 00 44 4b 30 31 30 00 00 61 09 17 0c
2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00
00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b
30 32 37 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00
02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27
10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 ff ff 00 44 4b 30 30 37 00 00 61 09 17 0c 2e 00
00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac
8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 31
37 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc
00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01
1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 ff ff 00 44 4b 30 30 32 00 00 61 09 17 0c 2e 00 00 00
00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04
04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 33 31 00
00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00
00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
ff ff 00 44 4b 30 31 36 00 00 61 09 17 0c 2e 00 00 00 00 00
00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05
0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 32 31 00 00 61
09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00
00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff
00 44 4b 30 32 38 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00
00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b
b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 ff ff 00 44 4b 30 35 30 00 00 61 09 17
0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00
00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44
4b 30 31 38 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00
00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00
27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 ff ff 00 44 4b 30 34 37 00 00 61 09 17 0c 2e
00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00
ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30
31 33 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02
bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10
01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 ff ff 00 44 4b 30 33 32 00 00 61 09 17 0c 2e 00 00
00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e
04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 32 32
00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00
00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 ff ff 00 44 4b 30 32 35 00 00 61 09 17 0c 2e 00 00 00 00
00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04
05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 31 39 00 00
61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00
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00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff
ff 00 44 4b 30 31 34 00 00 61 09 17 0c 2e 00 00 00 00 00 00
00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f
0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 32 39 00 00 61 09
17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00
00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00
44 4b 30 34 30 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00
00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6
00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 ff ff 00 44 4b 30 32 33 00 00 61 09 17 0c
2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00
00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b
30 33 33 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00
02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27
10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 ff ff 00 44 4b 30 34 39 00 00 61 09 17 0c 2e 00
00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac
8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 34
34 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc
00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01
1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 ff ff 00 44 4b 30 33 37 00 00 61 09 17 0c 2e 00 00 00
00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04
04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 33 34 00
00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00
00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
ff ff 00 44 4b 30 34 31 00 00 61 09 17 0c 2e 00 00 00 00 00
00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05
0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 33 35 00 00 61
09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00
00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff
00 44 4b 30 33 38 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00
00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b
b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 ff ff 00 44 4b 30 34 32 00 00 61 09 17
0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00
00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44
4b 30 33 36 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00
00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00
27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 ff ff 00 44 4b 30 34 38 00 00 61 09 17 0c 2e
00 00 00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00
ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30
33 39 00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02
bc 00 00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10
01 1e 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 ff ff 00 44 4b 30 34 33 00 00 61 09 17 0c 2e 00 00
```

```
00 00 00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e
04 04 05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 ff ff 00 44 4b 30 34 35
00 00 61 09 17 0c 2e 00 00 00 00 00 00 00 00 00 00 02 bc 00
00 00 00 00 00 00 00 ac 8e 04 04 05 0f 0b b6 00 27 10 01 1e
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 ff ff 00 44 4b 30 34 36 00 00 61 09 17 0c 2e 00 00 00 00
00 00 00 00 00 00 02 bc 00 00 00 00 00 00 00 00 ac 8e 04 04
05 0f 0b b6 00 27 10 01 1e 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 ff ff 00 0d 0d 0a 03
```

```
..................................................................
..
.  09-23-97  13:13:41   . Events: 1    . Responses: 0    . Message Output Cmds
.
..................................................................
..
```

DISPLAY INPUT MESSAGE LOG

```
INPUT MESSAGE:              16    CR01                              CR03

RECEIVE TIME (IPS): 09/23/97 12:46:08
RECEIVE TIME (ADAS):09/23/97 12:46:08
SIMULATOR ID:               11
MESSAGE TYPE:            ITWS6.LDD.MSG
MESSAGE SIZE:               82 <----->CR05
GROUP ID:                   16
```

HEX DUMP OF TEST FILE:

```
01 0d 0d 0a 20 20 20 20 20 20 20 20 20 0d 0d 0a 4c 44 55 53
32 37 20 4b 41 43 59 20 32 33 31 32 34 36 20 00 00 00 0d 0d
0a 00 07 04 4c cb 20 32 04 4d cb 20 32 04 4e cb 20 32 04 4f
cb 20 32 04 50 cb 20 32 04 51 cb 20 32 04 52 cb 20 32 0d 0d
0a 03
```

ITWS1 LDD INPUT MESSAGE/NLDN LDD OUTPUT MESSAGE (LMPA):

```
INPUT MESSAGE LOG - TEST ID: IT-05    VERS: 2
                                     CR03
...............

INPUT MESSAGE #:          16 CR01

  RECEIVE TIME (IPS):     09/23/97 12:46:08
  RECEIVE TIME (ADAS):    09/23/97 12:46:08
  SIMULATOR ID:                  6
  MESSAGE TYPE:           ITWS1 LDD MSG
  MESSAGE SIZE:                 82  <----->CR05
  GROUP ID:                     16
  MESSAGE TYPE: ITWS1 LDD
  HEADER:                 0x01
```

```
  TYPE:                   LD
  GEOGRAPHIC DESIG:       US
  BULLETIN:               27
  SITE ID:                KACY
  DAY/HOUR/MINUTE:        23/12/46
  Number of Messages       7
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR   :04
DATE/TIME FIELD    :4c cb 20 32


LENGTH INDICATOR   :04
DATE/TIME FIELD    :4d cb 20 32


LENGTH INDICATOR   :04
DATE/TIME FIELD    :4e cb 20 32


LENGTH INDICATOR   :04
DATE/TIME FIELD    :4f cb 20 32


LENGTH INDICATOR   :04
DATE/TIME FIELD    :50 cb 20 32


LENGTH INDICATOR   :04
DATE/TIME FIELD    :51 cb 20 32


LENGTH INDICATOR   :04
DATE/TIME FIELD    :52 cb 20 32
No more messages in this ADU

..................

INPUT MESSAGE LOG - TEST ID: IT-05    VERS: 2

...................

INPUT MESSAGE #:        16

  RECEIVE TIME (IPS):     09/23/97 12:46:08
  RECEIVE TIME (ADAS):    09/23/97 12:46:08
  SIMULATOR ID:                   7
  MESSAGE TYPE:           ITWS2 LDD MSG
  MESSAGE SIZE:                  82
  GROUP ID:                      16
  MESSAGE TYPE: ITWS2 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              27
  SITE ID:               KACY
  DAY/HOUR/MINUTE:       23/12/46
  Number of Messages      7
```

```
 LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :04
DATE/TIME FIELD     :4c cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4d cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4e cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4f cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :50 cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :51 cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :52 cb 20 32
No more messages in this ADU

.................

INPUT MESSAGE LOG - TEST ID: IT-05    VERS: 2

.................

INPUT MESSAGE #:        16

  RECEIVE TIME (IPS):     09/23/97 12:46:08
  RECEIVE TIME (ADAS):    09/23/97 12:46:08
  SIMULATOR ID:                  8
  MESSAGE TYPE:           ITWS3 LDD MSG
  MESSAGE SIZE:                 82
  GROUP ID:                     16
  MESSAGE TYPE: ITWS3 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              27
  SITE ID:               KACY
  DAY/HOUR/MINUTE:       23/12/46
  Number of Messages      7
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :04
DATE/TIME FIELD     :4c cb 20 32
```

```
LENGTH INDICATOR    :04
DATE/TIME FIELD     :4d cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4e cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4f cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :50 cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :51 cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :52 cb 20 32
No more messages in this ADU

....................

INPUT MESSAGE LOG - TEST ID: IT-05    VERS: 2

...................

INPUT MESSAGE #:          16

  RECEIVE TIME (IPS):      09/23/97 12:46:08
  RECEIVE TIME (ADAS):     09/23/97 12:46:08
  SIMULATOR ID:                   9
  MESSAGE TYPE:            ITWS4 LDD MSG
  MESSAGE SIZE:                  82
  GROUP ID:                      16
  MESSAGE TYPE: ITWS4 LDD
  HEADER:                 0x01
  TYPE:                   LD
  GEOGRAPHIC DESIG:       US
  BULLETIN:               27
  SITE ID:                KACY
  DAY/HOUR/MINUTE:        23/12/46
  Number of Messages       7
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :04
DATE/TIME FIELD     :4c cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4d cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4e cb 20 32
```

```
LENGTH INDICATOR    :04
DATE/TIME FIELD     :4f cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :50 cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :51 cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :52 cb 20 32
No more messages in this ADU

...................

INPUT MESSAGE LOG - TEST ID: IT-05     VERS: 2

...................

INPUT MESSAGE #:          16

  RECEIVE TIME (IPS):     09/23/97 12:46:08
  RECEIVE TIME (ADAS):    09/23/97 12:46:08
  SIMULATOR ID:                  10
  MESSAGE TYPE:           ITWS5 LDD MSG
  MESSAGE SIZE:                  82
  GROUP ID:                      16
  MESSAGE TYPE: ITWS5 LDD
  HEADER:                0x01
  TYPE:                  LD
  GEOGRAPHIC DESIG:      US
  BULLETIN:              27
  SITE ID:               KACY
  DAY/HOUR/MINUTE:       23/12/46
  Number of Messages      7
  LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR    :04
DATE/TIME FIELD     :4c cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4d cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4e cb 20 32


LENGTH INDICATOR    :04
DATE/TIME FIELD     :4f cb 20 32
```

LENGTH INDICATOR :04
DATE/TIME FIELD :50 cb 20 32

LENGTH INDICATOR :04
DATE/TIME FIELD :51 cb 20 32

LENGTH INDICATOR :04
DATE/TIME FIELD :52 cb 20 32
No more messages in this ADU

....

INPUT MESSAGE LOG - TEST ID: IT-05 VERS: 2

....

INPUT MESSAGE #: 16

RECEIVE TIME (IPS): 09/23/97 12:46:08
RECEIVE TIME (ADAS): 09/23/97 12:46:08
SIMULATOR ID: 11
MESSAGE TYPE: ITWS6 LDD MSG
MESSAGE SIZE: 82
GROUP ID: 16
MESSAGE TYPE: ITWS6 LDD
HEADER: 0x01
TYPE: LD
GEOGRAPHIC DESIG: US
BULLETIN: 27
SITE ID: KACY
DAY/HOUR/MINUTE: 23/12/46
Number of Messages 7
LDD FORMAT IN HEXDECIMAL

LENGTH INDICATOR :04
DATE/TIME FIELD :4c cb 20 32

LENGTH INDICATOR :04
DATE/TIME FIELD :4d cb 20 32

LENGTH INDICATOR :04
DATE/TIME FIELD :4e cb 20 32

LENGTH INDICATOR :04
DATE/TIME FIELD :4f cb 20 32

LENGTH INDICATOR :04
DATE/TIME FIELD :50 cb 20 32

LENGTH INDICATOR :04
DATE/TIME FIELD :51 cb 20 32

LENGTH INDICATOR   :04
DATE/TIME FIELD   :52 cb 20 32
No more messages in this ADU

....

DATA EXTRACTED FROM LMPA FILE

....

MON/DISK BLK=00005 09/23/97 **12:45** Page : 9
ASCII/8/NONE/ASYNC
....

41 7E 7D 96 0F CB 20 32 40 7E 7D 96 10 10 CB 20 32 A4 10 7E EE 26 14 21 78 7E
7D 96 11 CB 20 32 5E
....

7E 7D 96 12 CB 20 32 5D 7E 7D 96 13 CB 20 32 5C 7E 7D 96 14 CB 20 32 CD 87 FF
1B 8C 12 6B 7E 7D 96
....

15 CB 20 32 5A 7E 7D 96 16 CB 20 32 59 7E 7D 96 17 CB 20 32 58 7E 7D 96 18 CB
20 32 57 7E 7D 96 19
....

CB 20 32 56 7E 7D 96 1A CB 20 32 55 7E 7D 96 1B CB 20 32 54 7E 7D 96 1C CB 20
32 53 7E 7D 96 1D CB
....

20 32 52 7E 7D 96 1E CB 20 32 51 7E 7D 96 1F CB 20 32 50 7E 7D 96 20 CB 20 32
45 7C 1C 15 95 51 9B
....

7E 7D 96 21 CB 20 32 B7 7C 11 25 AC 4A 77 7E 7D 96 22 CB 20 32 6D 7E 7D 96 23
CB 20 32 9F 10 7E 05
....

27 9B 17 23 7E 7D 96 24 CB 20 32 D5 10 7D 29 1F 05 61 91 7E 7D 96 25 CB 20 32
86 10 7E D7 25 06 61
....

07 7E 7D 96 26 CB 20 32 CA 88 75 21 8A 61 94 7E 7D 96 27 CB 20 32 68 7E 7D 96
28 CB 20 32 67 7E 7D
....

96 29 CB 20 32 66 7E 7D 96 2A CB 20 32 65 7E 7D 96 2B CB 20 32 64 7E 7D 96 2C CB 20 32 63 7E 7D 96
....

2D CB 20 32 62 7E 7D 96 2E CB 20 32 61 7E 7D 96 2F CB 20 32 60 7E 7D 96 30 CB 20 32 7F 7E 7D 96 31
....

CB 20 32 10 7E 7E 7D 96 32 CB 20 32 3C 7F 26 27 93 42 EE 7E 7D 96 33 CB 20 32 7C 7E 7D 96 34 CB 20
....

32 50 10 7E 0E 26 B6 24 EF 7E 7D 96 35 CB 20 32 AA 7F A5 27 CF 9A 78 7E 7D 96 36 CB 20 32 79 7E 7D
....

96 37 CB 20 32 78 7E 7D 96 38 CB 20 32 77 7E 7D 96 39 CB 20 32 76 7E 7D 96 3A CB 20 32 9D 40 43 1F
....

94 32 52 7E 7D 96 3B CB 20 32 74 7E 7D 96 40 CB 20 32 0F 7E 7D 96 41 CB 20 32 0E 7E 7D 96 42 CB 20
....

32 0D 7E 7D 96 43 CB 20 32 0C 7E 7D 96 44 CB 20 32 0B 7E 7D 96 45 CB 20 32 0A 7E 7D 96 46 CB 20 32
....

09 7E 7D 96 47 CB 20 32 F2 10 7D B7 1F BD 41 D3 7E 7D 96 48 CB 20 32 07 7E 7D 96 49 CB 20 32 06 7E
....

7D 96 4A CB 20 32 05 7E 7D 96 4B CB 20 32 5E 7F 34 27 88 21 9F 7E 7D D0 86 06 09 0B 12 17 18 1A 1C
....

1E 22 26 27 2B 2C 2E 56 57 58 59 61 62 63 64 65 68 6D 72 76 10 7E 81 83 88 8B 8F 92 94 97 98 99 9E
....

MON/DISK BLK=00006 09/23/97 **12:46** Page : 10
ASCII/8/NONE/ASYNC

A1 A5 A6 A8 AA AB AC B0 B1 B2 B3 B4 B5 B6 B7 B8 BA BB BC BD BE C8 C9 CA CB CC CD CE CF D0 D1 D2 D3
....

D4 D5 D6 D7 D8 D9 DA DB DC E0 E1 E3 E4 E5 E6 E7 E8 E9 EA EB EC ED EE EF F1 F2
F3 F4 F9 FA 5B 7E 7D
....

D0 87 01 02 55 79 89 8A 8E 95 A7 B9 E2 F0 6C 7E 7D 96 4C CB 20 32 03 7E 7D 96
4D CB 20 32 02 7E 7D
....

96 4E CB 20 32 01 7E 7D 96 4F CB 20 32 00 7E 7D 96 50 CB 20 32 1F 7E 7D 96 51
CB 20 32 1E 7E 7D 96
....

52 CB 20 32 1D 7E 7D 96 53 CB 20 32 1C 7E 7D 96 54 CB 20 32 1B 7E 7D 96 55 CB
20 32 1A 7E 7D 96 56
....

CB 20 32 19 7E 7D 96 57 CB 20 32 18 7E 7D 96 58 CB 20 32 17 7E 7D 96 59 CB 20
32 16 7E 7D 96 5A CB
....

20 32 15 7E 7D 96 5B CB 20 32 14 7E 7D 96 5C CB 20 32 13 7E 7D 96 5D CB 20 32
12 7E 7D 96 5E CB 20
....

32 11 7E 7D 96 5F CB 20 32 10 10 7E 7D 96 60 CB 20 32 97 7F 9A 27 BD 71 B6 7E
7D 96 61 CB 20 32 93
....

7F 9C 27 99 46 EB 10 7D B6 27 BB 41 5B 7E 7D 96 62 CB 20 32 2D 7E 7D 96 63 CB
20 32 2C 7E 7D 96 64
....

CB 20 32 E0 10 7E EB 26 87 41 BE 7E 7D 96 65 CB 20 32 2A 7E 7D 96 66 CB 20 32
70 10 7E CE 25 8B 89
....

CE 7E 7D 96 67 CB 20 32 28 7E 7D 96 68 CB 20 32 27 7E 7D 96 69 CB 20 32 26 7E
7D 96 6A CB 20 32 25
....

7E 7D 96 6B CB 20 32 24 7E 7D 96 6C CB 20 32 23 7E 7D 96 6D CB 20 32 22 7E 7D
96 6E CB 20 32 21 7E
....

7D 96 6F CB 20 32 20 7E 7D 96 70 CB 20 32 3F 7E 7D 96 71 CB 20 32 A9 10 7E 0A
27 8C 51 19 7E 7D 96

....
....

72 CB 20 32 CA 7C 16 25 93 88 A3 7E 7D 96 73 CB 20 32 3C 7E 7D 96 74 CB 20 32
3B 7E 7D 96 75 CB 20

....
....

32 3A 7E 7D 96 76 CB 20 32 39 7E 7D 96 77 CB 20 32 38 7E 7D 96 78 CB 20 32 37
7E 7D 96 79 CB 20 32

....
....

36 7E 7D 96 7A CB 20 32 E7 10 7D 59 1F A6 53 1C 7E 7D 96 7B CB 20 32 34 7E 7D
96 80 CB 20 32 A2 40

....
....

18 1F 9D 02 B5 7E 7D 96 81 CB 20 32 CE 7E 7D 96 82 CB 20 32 CD 7E 7D 96 83 CB
20 32 C7 7F AC 27 9C

....
....

27 44 7E 7D 96 84 CB 20 32 CB 7E 7D 96 85 CB 20 32 82 10 7E F9 25 93 23 83 10
7E F9 25 8E 94 61 7E

....
....

7D 96 86 CB 20 32 C9 7E 7D 96 87 CB 20 32 C8 7E 7D 96 88 CB 20 32 C7 7E 7D 96
89 CB 20 32 C6 7E 7D

....
....
....

ADAS AWOS OUTPUT MESSAGE/ITWS AWOS INPUT MESSAGE:

OUTPUT MESSAGE LOG - TEST ID: IT-05 VERS: 2

....

OUTPUT MESSAGE #: 51

TRANSMIT TIME (IPS): 09/23/97 12:46:00
TRANSMIT TIME (ADAS): 09/23/97 12:46:00
TIME OFFSET: 0
STATION ID: 22
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 52

TRANSMIT TIME (IPS): 09/23/97 12:46:02

TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 14
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 53

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 19
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 54

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 15
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 55

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 23
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 56

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0

STATION ID: 18
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 57

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 20
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 58

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 16
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 59

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 12
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 60

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 13
MESSAGE TYPE: ADAS_AWOS_MSG

FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 61

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 17
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 62

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 21
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 63

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 26
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 64

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 41
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE: FIELD OFFSET: FIELD SIZE:

0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 65

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 31
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0
FIELD VALUE: FIELD OFFSET: FIELD SIZE:

0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 66

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 37
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0
FIELD VALUE: FIELD OFFSET: FIELD SIZE:

0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 67

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 35
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0
FIELD VALUE: FIELD OFFSET: FIELD SIZE:

0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 68

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 28
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0
FIELD VALUE: FIELD OFFSET: FIELD SIZE:

0	1	0

0	1	0
0	1	0

OUTPUT MESSAGE #: 69

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 42
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 70

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 27
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 71

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 32
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 72

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 43
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 73

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 24
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 74

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 38
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 75

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 25
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 76

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 29
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 77

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 40
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 78

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 33
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 79

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 39
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 80

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 30
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 81

TRANSMIT TIME (IPS): 09/23/97 12:46:02

TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 36
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 82

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 34
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 83

TRANSMIT TIME (IPS): 09/23/97 12:46:02
TRANSMIT TIME (ADAS): 09/23/97 12:46:02
TIME OFFSET: 0
STATION ID: 60
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 84

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0
STATION ID: 44
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 85

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0

STATION ID: 51
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 86

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0
STATION ID: 45
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 87

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0
STATION ID: 46
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 88

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0
STATION ID: 48
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 89

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0
STATION ID: 55
MESSAGE TYPE: ADAS_AWOS_MSG

FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 90

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0
STATION ID: 47
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 91

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0
STATION ID: 52
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 92

TRANSMIT TIME (IPS): 09/23/97 12:46:03
TRANSMIT TIME (ADAS): 09/23/97 12:46:03
TIME OFFSET: 0
STATION ID: 61
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 93

TRANSMIT TIME (IPS): 09/23/97 12:46:04
TRANSMIT TIME (ADAS): 09/23/97 12:46:04
TIME OFFSET: 0
STATION ID: 58
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 94

TRANSMIT TIME (IPS): 09/23/97 12:46:04
TRANSMIT TIME (ADAS): 09/23/97 12:46:04
TIME OFFSET: 0
STATION ID: 59
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 95

TRANSMIT TIME (IPS): 09/23/97 12:46:04
TRANSMIT TIME (ADAS): 09/23/97 12:46:04
TIME OFFSET: 0
STATION ID: 49
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 96

TRANSMIT TIME (IPS): 09/23/97 12:46:04
TRANSMIT TIME (ADAS): 09/23/97 12:46:04
TIME OFFSET: 0
STATION ID: 56
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0
0	1	0
0	1	0

OUTPUT MESSAGE #: 97

TRANSMIT TIME (IPS): 09/23/97 12:46:04
TRANSMIT TIME (ADAS): 09/23/97 12:46:04
TIME OFFSET: 0
STATION ID: 53
MESSAGE TYPE: ADAS_AWOS_MSG
FILE NAME: aw_msg/std
FIELD NUMBER: 0

FIELD VALUE:	FIELD OFFSET:	FIELD SIZE:
0	1	0

```
                 0                          1                0
                 0                          1                0
OUTPUT MESSAGE #:     98

  TRANSMIT TIME (IPS):   09/23/97 12:46:04
  TRANSMIT TIME (ADAS): 09/23/97 12:46:04
  TIME OFFSET:                 0
  STATION ID:              50
  MESSAGE TYPE:          ADAS_AWOS_MSG
  FILE NAME:             aw_msg/std
  FIELD NUMBER:           0
FIELD VALUE:               FIELD OFFSET:          FIELD SIZE:
                 0                          1                0
                 0                          1                0
                 0                          1                0

OUTPUT MESSAGE #:     99

  TRANSMIT TIME (IPS):   09/23/97 12:46:04
  TRANSMIT TIME (ADAS): 09/23/97 12:46:04
  TIME OFFSET:                 0
  STATION ID:              57
  MESSAGE TYPE:          ADAS_AWOS_MSG
  FILE NAME:             aw_msg/std
  FIELD NUMBER:           0
FIELD VALUE:               FIELD OFFSET:          FIELD SIZE:
                 0                          1                0
                 0                          1                0
                 0                          1                0

OUTPUT MESSAGE #:    100

  TRANSMIT TIME (IPS):   09/23/97 12:46:04
  TRANSMIT TIME (ADAS): 09/23/97 12:46:04
  TIME OFFSET:                 0
  STATION ID:              54
  MESSAGE TYPE:          ADAS_AWOS_MSG
  FILE NAME:             aw_msg/std
  FIELD NUMBER:           0
FIELD VALUE:               FIELD OFFSET:          FIELD SIZE:
                 0                          1                0
                 0                          1                0
                 0                          1                0

.............................

DR of IT-05A.I1AW for messages/site count.
.............................

## New ADU ## INPUT MESSAGE #: 2
ADU#: 2 | (IPS): 09/23/97 12:46:17 - (ADAS): 09/23/97 12:46:17 | msgs 50
Hdr: Sim-6 | ADU size: 3497 | Type: ITWS1 Awos | ID: KACY | OMO's = 0x32
 K011 K008 K003 K012 K005 K004 K009 K026 K015 K006 K020 K001 K030 K024 K010
 K027 K007 K017 K002 K031 K016 K021 K028 K050 K018 K047 K013 K032 K022 K025
 K019 K014 K029 K040 K023 K033 K049 K044 K037 K034 K041 K035 K038 K042 K036
 K048 K039 K043 K045 K046
```

....

DR of IT-05A.I2AW for messages/site count.

....

```
## New ADU ## INPUT MESSAGE #: 2
ADU#: 2 | (IPS): 09/23/97 12:46:14 - (ADAS): 09/23/97 12:46:14 | msgs 50
Hdr: Sim-7 | ADU size: 3497 | Type: ITWS2 Awos | ID: KACY | OMO's = 0x32
 K011 K008 K003 K012 K005 K004 K009 K026 K015 K006 K020 K001 K030 K024 K010
 K027 K007 K017 K002 K031 K016 K021 K028 K050 K018 K047 K013 K032 K022 K025
 K019 K014 K029 K040 K023 K033 K049 K044 K037 K034 K041 K035 K038 K042 K036
 K048 K039 K043 K045 K046
```

....

DR of IT-05A.I3AW for messages/site count.

....

```
## New ADU ## INPUT MESSAGE #: 2
ADU#: 2 | (IPS): 09/23/97 12:46:18 - (ADAS): 09/23/97 12:46:18 | msgs 50
Hdr: Sim-8 | ADU size: 3497 | Type: ITWS3 Awos | ID: KACY | OMO's = 0x32
 K011 K008 K003 K012 K005 K004 K009 K026 K015 K006 K020 K001 K030 K024 K010
 K027 K007 K017 K002 K031 K016 K021 K028 K050 K018 K047 K013 K032 K022 K025
 K019 K014 K029 K040 K023 K033 K049 K044 K037 K034 K041 K035 K038 K042 K036
 K048 K039 K043 K045 K046
```

....

DR of IT-05A.I4AW for messages/site count.

....

```
## New ADU ## INPUT MESSAGE #: 2
ADU#: 2 | (IPS): 09/23/97 12:46:19 - (ADAS): 09/23/97 12:46:19 | msgs 50
Hdr: Sim-9 | ADU size: 3497 | Type: ITWS4 Awos | ID: KACY | OMO's = 0x32
 K011 K008 K003 K012 K005 K004 K009 K026 K015 K006 K020 K001 K030 K024 K010
 K027 K007 K017 K002 K031 K016 K021 K028 K050 K018 K047 K013 K032 K022 K025
 K019 K014 K029 K040 K023 K033 K049 K044 K037 K034 K041 K035 K038 K042 K036
 K048 K039 K043 K045 K046
```

....

DR of IT-05A.I5AW for messages/site count.

....

```
## New ADU ## INPUT MESSAGE #: 2
ADU#: 2 | (IPS): 09/23/97 12:46:12 - (ADAS): 09/23/97 12:46:12 | msgs 50
Hdr: Sim-10 | ADU size: 3497 | Type: ITWS5 Awos | ID: KACY | OMO's = 0x32
 K011 K008 K003 K012 K005 K004 K009 K026 K015 K006 K020 K001 K030 K024 K010
 K027 K007 K017 K002 K031 K016 K021 K028 K050 K018 K047 K013 K032 K022 K025
 K019 K014 K029 K040 K023 K033 K049 K044 K037 K034 K041 K035 K038 K042 K036
 K048 K039 K043 K045 K046
```

....

DR of IT-05A.I6AW for messages/site count.

....

```
## New ADU ## INPUT MESSAGE #: 2
ADU#: 2 | (IPS): 09/23/97 12:46:15 - (ADAS): 09/23/97 12:46:15 | msgs 50
Hdr: Sim-11 | ADU size: 3497 | Type: ITWS6 Awos | ID: KACY | OMO's = 0x32
```

K011 K008 K003 K012 K005 K004 K009 K026 K015 K006 K020 K001 K030 K024 K010
K027 K007 K017 K002 K031 K016 K021 K028 K050 K018 K047 K013 K032 K022 K025
K019 K014 K029 K040 K023 K033 K049 K044 K037 K034 K041 K035 K038 K042 K036
K048 K039 K043 K045 K046

....

DATA EXTRACTED FROM ADAS FILE

ADAS COMMUNICATIONS DATAPOINT:

....
. 09-23-97 12:47:18 . Events: 0 . Responses: 0 . DATAPOINT CMDS
.
....

DISPLAY NLDN COMMUNICATIONS LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					09-23-97 12:44:28
NLDN FAILURES TOTAL:	02	0					09-23-97 12:44:28
ERROR DETECTED:	03	0					09-23-97 12:44:28
ERROR DETECTED TOTAL:	04	0					09-23-97 12:44:28

ALERT THRESHOLDS UPPER	LOWER	ENAB	ALARM THRESHOLDS UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS1

....
. 09-23-97 12:47:40 . Events: 0 . Responses: 0 .. DATAPOINT CMDS
.
....

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					09-23-97 12:44:28
AWOS MESSAGES SENT:	02	100					09-23-97 12:44:28
AWOS ADU MSGS SENT:	03	2					09-23-97 12:44:28
LDD MESSAGES SENT:	04	151					09-23-97 12:44:28

LDD ADU SENT:	05	26					09-23-97 12:44:28

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS2

. 09-23-97 12:47:52 . Events: 0 . Responses: 0 . DATAPOINT CMDS

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					09-23-97 12:44:28
AWOS MESSAGES SENT:	02	100					09-23-97 12:44:28
AWOS ADU MSGS SENT:	03	2					09-23-97 12:44:28
LDD MESSAGES SENT:	04	151					09-23-97 12:44:28
LDD ADU SENT:	05	26					09-23-97 12:44:28

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS3

. 09-23-97 12:48:04 . Events: 2 . Responses: 0 . DATAPOINT CMDS

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					09-23-97 12:44:28
AWOS MESSAGES SENT:	02	100					09-23-97 12:44:28
AWOS ADU MSGS SENT:	03	2					09-23-97 12:44:28
LDD MESSAGES SENT:	04	151					09-23-97 12:44:28
LDD ADU SENT:	05	26					09-23-97 12:44:28

ALERT THRESHOLDS			ALARM THRESHOLDS		
UPPER	LOWER	ENAB	UPPER	LOWER	ENAB

-1	-1	YES	-1	2	YES

ITWS4

```
..........................................................................
..
.  09-23-97  12:48:18  . Events:     3 . Responses:     0 .    DATAPOINT CMDS
.
..........................................................................
..
```

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					09-23-97 12:44:28
AWOS MESSAGES SENT:	02	150					09-23-97 12:44:28
AWOS ADU MSGS SENT:	03	3					09-23-97 12:44:28
LDD MESSAGES SENT:	04	212					09-23-97 12:44:28
LDD ADU SENT:	05	37					09-23-97 12:44:28

ALERT THRESHOLDS UPPER	LOWER	ENAB	ALARM THRESHOLDS UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS5

```
..........................................................................
..
.  09-23-97  12:48:31  . Events:     3 . Responses:     0 .    DATAPOINT CMDS
.
..........................................................................
..
```

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					09-23-97 12:44:28
AWOS MESSAGES SENT:	02	150					09-23-97 12:44:28
AWOS ADU MSGS SENT:	03	3					09-23-97 12:44:28
LDD MESSAGES SENT:	04	212					09-23-97 12:44:28
LDD ADU SENT:	05	37					09-23-97 12:44:28

ALERT THRESHOLDS UPPER	LOWER	ENAB	ALARM THRESHOLDS UPPER	LOWER	ENAB
-1	-1	YES	-1	2	YES

ITWS6

```
..........................................................................
..
```

. 09-23-97 12:49:07 . Events: 5 . Responses: 0 . DATAPOINT CMDS
.
....
..

DISPLAY ITWS COMMUNICATION LU DATAPOINTS

DATAPOINT NAME	ID	VALUE	ALERT CURR	ALERT PAST	ALARM CURR	ALARM PAST	LAST RESET
CONNECTION STATUS:	01	CFG-ACTIVE					09-23-97 12:44:28
AWOS MESSAGES SENT:	02	150					09-23-97 12:44:28
AWOS ADU MSGS SENT:	03	3					09-23-97 12:44:28
LDD MESSAGES SENT:	04	212					09-23-97 12:44:28
LDD ADU SENT:	05	37					09-23-97 12:44:28

ALERT THRESHOLDS UPPER	ALERT THRESHOLDS LOWER	ENAB	ALARM THRESHOLDS UPPER	ALARM THRESHOLDS LOWER	ENAB
-1	-1	YES	-1	2	YES

ADAS EVENT LOG:

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:38:43
EVENT SEQ. NUMBER: 44 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:38:43
EVENT SEQ. NUMBER: 45 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:38:43
EVENT SEQ. NUMBER: 46 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:38:43
EVENT SEQ. NUMBER: 47 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:38:44
EVENT SEQ. NUMBER: 48 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:38:48
EVENT SEQ. NUMBER: 49 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:44:20
EVENT SEQ. NUMBER: 56 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:44:21
EVENT SEQ. NUMBER: 58 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:44:23
EVENT SEQ. NUMBER: 60 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:44:25
EVENT SEQ. NUMBER: 62 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:44:26
EVENT SEQ. NUMBER: 63 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:44:29
EVENT SEQ. NUMBER: 69 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-active

EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-23-97 12:56:27
EVENT SEQ. NUMBER: 1457 EVENT TYPE: 61 CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 09-23-97 12:56:31
EVENT SEQ. NUMBER: 1458   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 09-23-97 12:56:40
EVENT SEQ. NUMBER: 1462   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 09-23-97 12:56:44
EVENT SEQ. NUMBER: 1464   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 09-23-97 12:56:48
EVENT SEQ. NUMBER: 1466   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 09-23-97 12:56:51
EVENT SEQ. NUMBER: 1467   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 09-23-97 12:44:31
EVENT SEQ. NUMBER: 70   EVENT TYPE: 62   CSC ID: 22.01
Status of the NLDN connection has changed.

comm status: enabled-active

C.5.5.2 TCF Test Procedure Steps

The Following test procedure steps, referenced by evaluation criteria "a" of this test's Data Reduction and Analysis Method paragraph in the main body of this report, were extracted from test procedure file "IT-05.TCF".

TEST ID: **IT-05** TEST OPERATOR: ____HUGH H. VUONG__________ DATE: _09/23_/97_ TIME: _12:_45 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	Verify that the LMPA is configure as below: **Line Setup** **Mode: MONITOR** Source: **LINE** Code: **ASCII** Bits: **8** Parity: **NONE** Format: **ASYNC** Clock Source: **INTERNAL** Speed: **1200** Bit order/Polarity: **NORMAL** **Display Setup** Display Mode: **DATA** Type : **DUAL** Record Setup Capture Memory: **DISK** Disk No: **FD1** Data to Record: **CHAR** Init. Cond: **RECORD**	Configure the LMPA to capture the link information.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the LMPA port to the ADAS/NLDN Monitor port.	The patch cable connects the LMPA's & NLDN Monitor's port.	[X] Pass [ ] Fail	Stop Test
3.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Insert Cable
4.	@Patch Panel: Verify that a patch cable connects the ADAS/NLDN Port to the "live" NLDN Monitor port.	The patch cable connects the IPS's & NLDN's port.	[X] Pass [ ] Fail	Insert Cable
5.	@Patch Panel: verify that a patch cable re-directs the IPS LOG Port to the PSF-PC1 for data capture.	A cable patches the IPS LOG port to the PSF-PC1 port.	[X] Pass [ ] Fail	Insert Cable
6.	@Patch Panel: verify that a patch cable re-directs the ADAS SEP Port to the PSF-PC2 for data capture.	A cable patches the SEP Port to the PSF-PC2 port.	[X] Pass [ ] Fail	Insert Cable
7.	@PC1: start data capture. **"cap_data [space] IT-05 [RETURN]{wait}[RETURN]**.	The PSF-PC1 is configured to capture the IPS data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test
8.	@PC2: start data capture. **"cap_data [space] IT-05 [RETURN]{wait}[right][del][del][del]** "com"	The PSF-PC2 is configured to capture the ADAS data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test

TEST ID: **IT-05** TEST OPERATOR: ____HUGH H. VUONG__________ DATE: _09/23_/97_ TIME: _12:_45 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RETURN].			
9.	To log into AUC enter: login: **"adas"** password: **"adas123"**	The state of the ADAS apllication is displayed, followed by the 'adas' prompt.	[X] Pass [ ] Fail	Stop Test
10.	If the ADAS is not shutdown then -> @AUC 'adas' prompt: Issue the stop_adas command. **"stop_adas [RETURN]"**	The AUC indicates an emergency shutdown. The ASC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
11.	To log into IUC enter: login: **"aldars"** password: **"metar1"**	The state of the IPS application is displayed, followed by the 'aldars' prompt.	[X] Pass [ ] Fail	Stop Test
12.	If IPS is not shutdown then -> @IUC 'aldars' prompt: Issue the command to Shutdown the IPS. **"stop_ips [RETURN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
13.	@IUC: enter **"set_itws_min"**	set the time for ITWSs	[X] Pass [ ] Fail	Stop Test
14.	@IUC: select **"3'**	set 30 minutes for ITWSs data.	[X] Pass [ ] Fail	Stop Test
15.	@IUC: enter **" ADR_On"**	Capture the data file(s) to the unix'/temp' directory, and print the data when the test is finished.	[X] Pass [ ] Fail	Stop Test
16.	@IUC and @ AUC enter **"setdate MMDDhhmmYY"** {MMDDhhmmYY} shoud be obtained from the 10 digits output by IPS @IUC in the previous step. Set the date and time to the same minute. Use the GMT from the NLDN monitor display.	IUC and AUC will display the entered date and time.	[X] Pass [ ] Fail	Stop Test
17.	@IUC 'ALDARS' prompt: enter **"si"**.	IUC Displays: Specialist can login.	[X] Pass [ ] Fail	Stop Test
18.	To log into ISC enter: login: **"isi"** password: **"test12"**	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
19.	@ISC display: Reset the IPS test time offset. **"[F8] [F11] [SPACE] [RETURN] [F14]"**.	The IPS test time offset is reset to 0.	[X] Pass [ ] Fail	Stop Test
20.	@AUC 'adas' prompt: enter **"cl 65"**	AUC Displays: Config **65** loaded	[X] Pass [ ] Fail	Stop Test
21.	@AUC 'adas' prompt: enter **"sa clean"**	Wait until the AUC Displays "Specialists may logon for Initialization State".	[X] Pass [ ] Fail	Stop Test
22.	Wait for ADAS to get to Operational State	Wait for "Specialist may login for the	[X] Pass [ ] Fail	Stop Test

TEST ID: **IT-05** TEST OPERATOR: ____HUGH H. VUONG__________ DATE: _09/23_/97_ TIME: _12:_45 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		Operational State" to be displayed on AUC.		
23.	@ISC ISI: start test **"IT-05"**. **"[F8] [F7] IT-05 [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN] [RETURN]** [SPACE] **[RETURN] [RETURN] {wait} [F14] [F14]"**	ISI Response: "Starting Test..." then --- --- | Start Test Request: Success | | The Test Started | --- ---	[X] Pass [ ] Fail	Stop Test
24.	@IUC wait for displaying the first " S Pong " received.	S Pong indicates that ADAS communicate with IPS.	[X] Pass [ ] Fail	Stop Test
25.	@LMPA: enter the **"RUN"** key.	Starting to record the data.	[X] Pass [ ] Fail	Stop Test
26.	@IUC wait for displaying successive multiple " S Pong 4 " received.	S Pong 4 indicates that ADAS communicate with DLP.	[X] Pass [ ] Fail	Stop Test
27.	@IUC ISI: enter **[F6] [F7]**	ISI display: "Ack after 45-50 secs after xfer to DLP to set start test flag".	[X] Pass [ ] Fail	Stop Test
28.	@ISC ISI: wait for the IPS clock displays @ 45-50 secs of the next mission cycle. Select **[F7]** .	Acknowledge event (start of the lightning script file).	[X] Pass [ ] Fail	Stop Test
29.	Record the time of test commencement below; as depicted on the ISI screen clock display, and the current date based on Zulu time. Hr:_12_min:_45_sec:_45__ Date__09/23/97__	Record the date/ time when select **'[F7]'** above.	[X] Pass [ ] Fail	Stop Test
30.	To log into ASC enter: login: **"si"** password: **"test12"**	ADAS SI (ASI) starts.	[X] Pass [ ] Fail	Stop Test
31.	@ASC: NLDN Communications datapoint, Select **[F10] [F7] [N] [RETURN] [F2] [F14]**.	The NLDN Interface Status	[X] Pass [ ] Fail	Stop Test
32.	@ASC: ITWS1 Communications datapoint, Select **[F7] [I] [RETURN]** enter "ID = I001",**[RETURN] [F2] [F14]**.	The ITWS1 Interface Status	[X] Pass [ ] Fail	Stop Test
33.	@ASC: ITWS2 Communications datapoint, Select **[F7][I] [RETURN]** enter ITWS Site ID = I002,**[RETURN] [F2] [F14]**.	The ITWS2 Interface Status	[X] Pass [ ] Fail	Stop Test
34.	@ASC: ITWS3 Communications datapoint, Select **[F7]**	The ITWS3 Interface Status	[X] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[I] **[RETURN]** enter "ID = I003",**[RETURN]** **[F2]** **[F14]**.			
35.	@ASC: ITWS4 Communications datapoint, Select **[F7]** **[I]** **[RETURN]** enter "ID = I004",**[RETURN]** **[F2]** **[F14]**.	The ITWS4 Interface Status	[X] Pass [ ] Fail	Stop Test
36.	@ASC: ITWS5 Communications datapoint, Select **[F7][I]** **[RETURN]** enter "ID = I005",**[RETURN]** **[F2]** **[F14]**.	The ITWS5 Interface Status	[X] Pass [ ] Fail	Stop Test
37.	@ASC: ITWS6 Communications datapoint, Select **[F7][I]** **[RETURN]** enter "ID = I006",**[RETURN]** **[F2]** **[F14]** **[F14]**.	The ITWS6 Interface Status	[X] Pass [ ] Fail	Stop Test
38.	@PC2: close Procomm software after capturing the test data. **{wait}** **[Alt-X]** **[RETURN]**.	Procomm Plus closes.	[X] Pass [ ] Fail	Stop Test
39.	@PC2: start data capture. **"cap_data** **[space]** **IT-05** **[RETURN]{wait}[right][del][del][del]** "evt" **[RETURN]**.	The PSF-PC2 is configured to capture the ADAS EVENT data output into a DOS ASCII file.	[X] Pass [ ] Fail	Stop Test
40.	Wait for Test to automatically end.	Expected Response @IUC: "**** ICP_CTLsta.c test_term() successfully ****"	[X] Pass [ ] Fail	Stop Test
41.	@LMPA: enter the "PROGRAM" key.	The LMPA is stopped to capture the LDD data.	[X] Pass [ ] Fail	Stop Test
42.	@ISI: Display the ITWS1 AWOS Out Incoming Message Log (IML) to file. **"[F7][8][F7]** **IT-05** **[RETURN]** **[RETURN]** **[SPACE]** **[SPACE]** **[RETURN]** **[I]** **[RETURN]**.	File is display.	[X] Pass [ ] Fail	Stop Test
43.	@ISI: If the displayed message's IPS receive time is not greater the recorded start time plus 10 seconds (RECEIVE TIME(IPS):=> 10 secs), press **[F7]** to display the next record. Repeat **[F7]** until desired record is shown.	Record is shown.	[X] Pass [ ] Fail	Stop Test
44.	Verify that the MESSAGE SIZE does not exceed 4096 bytes.	Message size IAW ADAS/ITWS ICD	[X] Pass [ ] Fail	Stop Test
45.	@ISI: Press **[F10]** to print message in HEX **{wait}** **[F14]** **[F14]**.	HEX printout of record is sent to printer.	[X] Pass [ ] Fail	Stop Test
46.	@ISI: Display the ITWS1 LDD Out Incoming Message Log (IML) to file. **"[F7]** **IT-05** **[RETURN][RETURN]** **[SPACE]** **[SPACE]** **[RETURN]** **[I]** **[DOWN][RETURN]**.	File is display.	[X] Pass [ ] Fail	Stop Test

TEST ID: **IT-05** TEST OPERATOR: ____HUGH H. VUONG__________ DATE: _09/23_/97_ TIME: _12:_45 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
47.	@ISI: If the displayed message's IPS receive time is not greater the recorded start time plus 10 seconds (RECEIVE TIME(IPS):=> 10 secs), press **[F7]** to display the next record. Repeat **[F7]** until desired record is shown.	Record is shown.	**[X]** Pass [ ] Fail	Stop Test
48.	Verify that the MESSAGE SIZE does not exceed 4096 bytes.	Message size IAW ADAS/ITWS ICD	**[X]** Pass [ ] Fail	Stop Test
49.	@ISI: Press **[F10]** to print message in HEX **{wait}** **[F14]** **[F14]**.	HEX printout of record is sent to printer.	**[X]** Pass [ ] Fail	Stop Test
50.	@ISI: Output the ITWS1 LDD Out Incomming Message Log (IML) to file. "**[F7]** **IT-05** **[RETURN]**[**RETURN]** **[SPACE]** **[RETURN]** **[I]** **[DOWN]** **[RETURN]**[**RETURN]** **{wait}** **[F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
51.	@ISI: Output the ITWS1 AWOS Out Incomming Message Log (IML) to file. "**[F7]** **IT-05** **[RETURN][RETURN][SPACE]** **[RETURN]** **[I]** **[RETURN][RETURN]** **{wait}** **[F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
52.	@ISI: Output the ITWS2 AWOS Out Incomming Message Log (IML) to file. "**[F7]**, **IT-05** **[RETURN][RETURN]** **[SPACE]** **[RETURN]** **[I]** **[DOWN][DOWN][RETURN]{wait}** **[F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
53.	@ISI: Output the ITWS2 LDD Out Incomming Message Log (IML) to file. "**[F7]** **IT-05** **[RETURN][RETURN]** **[SPACE]** **[RETURN]** **[I]** **[DOWN]** **[DOWN]** **[DOWN]** **[RETURN]{wait}** **[F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
54.	@ISI: Output the ITWS3 AWOS Out Incomming Message Log (IML) to file. "**[F7]** **IT-05** **[RETURN][RETURN]** **[SPACE]** **[RETURN]** **[I]** **[RIGHT][RETURN]{wait}** **[F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
55.	@ISI: Output the ITWS3 LDD Out Incomming Message Log (IML) to file. "**[F7]** **IT-05** **[RETURN][RETURN]** **[SPACE]** **[RETURN]** **[I]** **[RIGHT][DOWN][RETURN]{wait}** **[F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
56.	@ISI: Output the ITWS4 AWOS Out Incomming Message Log (IML) to file. "**[F7]** **IT-05** **[RETURN][RETURN]** **[SPACE]** **[RETURN]** **[I]** **[RIGHT]** **[DOWN]** **[DOWN]** **[RETURN]{wait}** **[F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass [ ] Fail	Stop Test

TEST ID: **IT-05** TEST OPERATOR: ____HUGH H. VUONG__________ DATE: _09/23_/97_ TIME: _12:_45 TEST DIRECTOR'S INITIALS ____

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
57.	@ISI: Output the ITWS4 LDD Out Incomming Message Log (IML) to file. "**[F7] IT-05 [RETURN][RETURN] [SPACE] [RETURN] [I] [RIGHT] [DOWN] [DOWN] [DOWN] [RETURN]{wait} [F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
58.	@ISI: Output the ITWS5 AWOS Out Incomming Message Log (IML) to file. "**[F7] IT-05 [RETURN][RETURN] [SPACE] [RETURN] [I] [RIGHT] [RIGHT] [RETURN]{wait} [F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
59.	@ISI: Output the ITWS5 LDD Out Incomming Message Log (IML) to file. "**[F7] IT-05 [RETURN][RETURN][SPACE] [RETURN] [I] [RIGHT] [RIGHT] [DOWN] [RETURN]{wait} [F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
60.	@ISI: Output the ITWS6 AWOS Out Incomming Message Log (IML) to file. "**[F7] IT-05 [RETURN][RETURN] [SPACE] [RETURN] [I] [RIGHT] [RIGHT] [DOWN] [DOWN] [RETURN]{wait} [F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
61.	@ISI: Output the ITWS6 LDD Out Incomming Message Log (IML) to file. "**[F7] IT-05 [RETURN][RETURN] [SPACE] [RETURN] [I] [RIGHT] [RIGHT] [DOWN] [DOWN] [DOWN] [RETURN]{wait} [F14]**.	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
62.	@ISI: Output the AWOS MESSAGES Output Outgoing Message Log (OML) to file. "**[F8] IT-05 [RETURN][RETURN] [SPACE] [RETURN] [A] [RETURN] {wait} [F14] [F14] [F14]**"	The specified log is output to the '/tmp' directory. The Output Message Log Screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
63.	@ASC SI: Select **[F13] [F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 5 **[RETURN][F14]**.	EVENT LOG for status of the AWOS/ASOS connection has changed.	**[X]** Pass **[ ]** Fail	Stop Test
64.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time indicates the current time), enter the EVENT type: 61 **[RETURN][F14]**.	EVENT LOG for status of the ITWS connection has changed.	**[X]** Pass **[ ]** Fail	Stop Test
65.	@ASC SI: Select **[F11]**, highlight "PROCEED WITH EVENT LOG DATA REPORT" **[RETURN]** (ensure that the Start Time indicates "00:00:00" and the Stop Time	EVENT LOG for status of the NLDN connection has changed.	**[X]** Pass **[ ]** Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	indicates the current time), enter the EVENT type: 62 **[RETURN] F14] [F14]**.			
66.	@ISC ISI: Issue the command to Shutdown IPS. "**[F8] [F10] [SPACE] [RETURN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
67.	@ASC SI: Issue the command to Shutdown ADAS. "**[F7] [F8] [SPACE] [RETURN]**"	The AUC indicates a graceful shutdown. The ASC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
68.	@PC1: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[X]** Pass [ ] Fail	Stop Test
69.	@PC2: close Procomm software after capturing the test data. **{wait] [Alt-X] [RETURN]**.	Procomm Plus closes.	**[X]** Pass [ ] Fail	Stop Test
70.	@AUC: enter **"exit"**	The AUC displays a login prompt.	**[X]** Pass [ ] Fail	Stop Test
71.	@IUC: enter **"exit"**	The IUC displays a login prompt.	**[X]** Pass [ ] Fail	Stop Test

- - - - - **END OF TEST PROCEDURE** - - - - - **END OF TEST PROCEDURE** - - - - - **END OF TEST PROCEDURE** - - - - - **END OF TEST PROCEDURE** - - - - -

C.5.6. TEST IT-06 - Recoverable I/O Init. Error (ITWS)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.5.6.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test IT-06.)
b.	[XX]	[ ]	The ADAS Event Log must show that ADAS detected the off-line ITWS Simulator CR1 and continued to the Operational State - Reduce Mode as indicated by the SYS_MODE datapoint (LU 20 DP 02) in the Datapoint request CR2*.
c.	[XX]	[ ]	After communication was enabled, the ITWS simulator must be reported as active CR3.
d.	[XX]	[ ]	The transition from Reduce to Full Mode must have occurred as indicated by the third request of the SYS_MODE datapoint (LU 20 DP 02) CR4*.

* The time stamps shown on the datapoint messages indicates when it was retrieved and not when the datapoint changed value.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into IT-06's Test Conduct Form (TCF) file, "IT-06.TCF".

```
EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-19-97 18:09:16
EVENT SEQ. NUMBER: 45     EVENT TYPE: 61        CSC ID: 21.01
Status of the ITWS connection has changed.

  site id: I001
  comm status: enabled-failed

EVENT PRIORITY: non-critical     DATE/TIME STAMP: 08-19-97 18:09:16
EVENT SEQ. NUMBER: 46     EVENT TYPE: 61        CSC ID: 21.01
Status of the ITWS connection has changed.

  site id: I002
  comm status: enabled-failed
```

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:09:17
EVENT SEQ. NUMBER: 47   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I003
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:09:17
EVENT SEQ. NUMBER: 48   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:09:17
EVENT SEQ. NUMBER: 49   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-failed

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:09:21
EVENT SEQ. NUMBER: 50   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-failed   CR1

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:11:22
EVENT SEQ. NUMBER: 253   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I005
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:11:25
EVENT SEQ. NUMBER: 254   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I001
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:11:26
EVENT SEQ. NUMBER: 255   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I006
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:11:27
EVENT SEQ. NUMBER: 256   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I002
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:11:30
EVENT SEQ. NUMBER: 257   EVENT TYPE: 61   CSC ID: 21.01

Status of the ITWS connection has changed.

site id: I003
comm status: enabled-active

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 08-19-97 18:11:33
EVENT SEQ. NUMBER: 258   EVENT TYPE: 61   CSC ID: 21.01
Status of the ITWS connection has changed.

site id: I004
comm status: enabled-active CR4

INPUT MESSAGE #: 158
RECEIVE TIME (ADAS): 08/19/97 18:11:16
++

21378	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
21380	DATE:	08/19/97	TIME:	18:11:16
21382	DATAPOINT ID:	0x02	CONDITION STATUS:	0x42
21384	PARAMETER VALUE:	(001) Decimal		CR2

INPUT MESSAGE #: 159
RECEIVE TIME (ADAS): 08/19/97 18:12:16
++

21398	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
21400	DATE:	08/19/97	TIME:	18:12:16
21402	DATAPOINT ID:	0x02	CONDITION STATUS:	0x40
21404	PARAMETER VALUE:	(000) Decimal		CR3

C.5.6.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "IT-06.TCF".

TEST # **IT-06** TESTED BY: _____ Jock K. Stratton _____ DATE: 19/Aug/97 TIME: 18:04 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@ PC: enter '**cap_itd IT-06**'	Procomm starts, opens the log file, then displays a ready message.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 51**"	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@**ISC** 'login': enter '**isi**', then '**test12**"	IPS SI (ISI) starts.	[X] Pass [ ] Fail	Stop Test
7.	Start test "IT-06" w/ RETRY set to "YES". @ISC: "**[F8] [F7] IT-06 <13:[RTN]> [SP] <2:[RTN]> {wait} <2:[F14]>**"	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter "**sa clean**"	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	When prompted by an IPS event, login to ADAS, report event log event type 61 entries, then acknowledge the IPS prompt. @ISI: "**[F6] {wait} [F7]**" @ASC: "**si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 61 [RTN] {wait} <3:[F14]> [SP] [RTN]**" @ISC: "**[F7]**"	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
10.	When the IPS test terminates, shutdown ADAS. @ISI: "**{wait} [F7] <2:[F14]>**" @AUC: "**stop_adas [RTN]**"	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
11.	Output the IML: MPS DATA RESPONSE to file. @ISC: "**[F7] [F8] [F7] IT-06 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>**"	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
12.	@Patch Panel: verify that a patch cable	A cable patches the SMP port's top	[X] Pass [ ] Fail	Stop Test

TEST # **IT-06** TESTED BY: _____ Jock K. Stratton _____ DATE: 19/Aug/97 TIME: 18:04 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	re-directs the IPS SMP output to the PSF-PC for data capture.	socket to the PSF-PC port's top socket.		
13.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
14.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.6. CATEGORY MP - Maintenance Processing Tests

Testing of ADAS's Remote Monitoring Subsystem (RMS) was performed by the MPS group, ACT-330. Refer to the MPS group's test report, included as Appendix D to this report.

C.7. CATEGORY OP - Operational Tests

C.7.1. TEST OP-01 - ADAS Startup/Shutdown

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.1.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-01.)
b.	[XX]	[ ]	ADAS must achieve a successful uninterrupted startup CR1A & CR1B.
c.	[XX]	[ ]	ADAS must then be shutdown CR2A & CR2B.
d.	[XX]	[ ]	ADAS must progress from restart CR3 to control by the specialist during the initialization state CR4A - CR4D.
e.	[XX]	[ ]	The ADAS Event log must contain the Event indicating ADAS was commanded to shutdown CR5.
f.	[XX]	[ ]	Normal ADAS shutdown was indicated by no event type 42 (CSC Error) events after the shutdown request.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-01's Test Conduct Form (TCF) file, "OP-01.TCF".

Run 2 - PASSED: PTR OTE-011 fix verified.

EVENT PRIORITY: normal   DATE/TIME STAMP: 01-05-98 15:54:25
EVENT SEQ. NUMBER: 258   EVENT TYPE: 20   CSC ID: 14.01
ADAS specialist has issued a command request.

specialist cmd: [LOGON]   CR1A

EVENT PRIORITY: normal   DATE/TIME STAMP: 01-05-98 15:54:30
EVENT SEQ. NUMBER: 260   EVENT TYPE: 20   CSC ID: 14.01
ADAS specialist has issued a command request.

specialist cmd: [ADMIN CMDS] - SHUTDOWN ADAS   CR2A

EVENT PRIORITY: normal   DATE/TIME STAMP: 01-05-98 15:54:31
EVENT SEQ. NUMBER: 261   EVENT TYPE: 39   CSC ID: 13.02
A system state change has occurred.

state: operational   CR1B

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 01-05-98 15:54:31
EVENT SEQ. NUMBER: 262   EVENT TYPE: 14   CSC ID: 10.01
A Return To Normal/State Change condition was triggered by maint. datapoints

logical unit: RMS Master   dp item: ADAS system state
message function: State Change   status: Normal
Initiated by: ADAS Maintenance Phase   value: shutdown   CR2B

EVENT PRIORITY: normal   DATE/TIME STAMP: 01-05-98 15:56:13
EVENT SEQ. NUMBER: 377   EVENT TYPE: 39   CSC ID: 13.02
A system state change has occurred.

state: initialization-start   CR3

EVENT PRIORITY: normal   DATE/TIME STAMP: 01-05-98 15:56:13
EVENT SEQ. NUMBER: 378   EVENT TYPE: 34   CSC ID: 13.02
Specialist logon is now permitted.   CR4A

EVENT PRIORITY: normal   DATE/TIME STAMP: 01-05-98 15:56:19
EVENT SEQ. NUMBER: 470   EVENT TYPE: 20   CSC ID: 14.01
ADAS specialist has issued a command request.

specialist cmd: [LOGON]   CR4B

EVENT PRIORITY: normal   DATE/TIME STAMP: 01-05-98 15:57:20
EVENT SEQ. NUMBER: 487   EVENT TYPE: 20   CSC ID: 14.01
ADAS specialist has issued a command request.

specialist cmd: [EDIT WORKING ADAPT] - CMN WTHR PARAMS   CR4C

EVENT PRIORITY: normal DATE/TIME STAMP: 01-05-98 15:57:29
EVENT SEQ. NUMBER: 489 EVENT TYPE: 20 CSC ID: 14.01
ADAS specialist has issued a command request.

specialist cmd: [ADAPT CMDS] - INSTALL WORKING ADAPT CR4D

EVENT PRIORITY: normal DATE/TIME STAMP: 01-05-98 15:58:39
EVENT SEQ. NUMBER: 505 EVENT TYPE: 20 CSC ID: 14.01
ADAS specialist has issued a command request.

specialist cmd: [ADMIN CMDS] - SHUTDOWN ADAS CR5

C.7.1.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-01.TCF".

TEST # **OP-01** TESTED BY: _____ Jock K. Stratton _____ DATE: 05/JAN/98 TIME: 15:48 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Patch the SEP to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter '**cap_itd OP-01**'	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars' prompt: enter '**si**'	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter '**cl 51**'	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': enter '**isi test12**'	The ISI default is displayed.	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "OP-01" w/ RETRY set to **YES**. @ISC: "**[F8] [F7] OP-01 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	Start ADAS and record the system time. @AUC 'adas' prompt: enter '**sa clean**'	The system time is displayed @AUC and ADAS.	Start Time 15:50:54 [X] Pass [ ] Fail	Stop Test
9.	After ADAS update MPS, login, & shutdown. @ASC 'login': enter "**si test12**" @ASC: "**[F7] [F8] [SP] [RTN]**"	The SI default screen is displayed. The ASC indicates shutdown processing. The ADAS Shuts down.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
10.	@AUC 'adas' prompt: enter "**sa**"	ADAS starts into the Initialization State.	[X] Pass [ ] Fail	Stop Test
11.	Login to SI during the Initialization State. @ASC 'login': enter '**si test12**'	The Specialist Interface Default screen will be displayed,	[X] Pass [ ] Fail	Stop Test
12.	Edit the AWOS Common Weather Parameters. @ASC: "**[F8] [F8] AAAAA [RTN]**"	The "Edit AWOS Common Weather Parameters" screen is displayed.	[X] Pass [ ] Fail	Stop Test
13.	Set the CEILING THRESHOLD #1 field to 80. @ASC: "**80 [RTN]**"	The field must be updated with the new value.	[X] Pass [ ] Fail	Stop Test
14.	Set the VISIBILITY THRESHOLD #1 field to 1.5. @ASC: "**<5:[DOWN]> 150 [RTN]**"	The field must be updated with the new value.	[X] Pass [ ] Fail	Stop Test

TEST # **OP-01** TESTED BY: _____ Jock K. Stratton _____ DATE: 05/JAN/98 TIME: 15:48 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
15.	Set the WIND SPEED field to 76. @ASC: **"<5:[DOWN]> 76 [RTN]"**	The field must be updated with the new value.	[X] Pass [ ] Fail	Stop Test
16.	Set the RVR field to 60. @ASC: **"<2:[UP]> [UP] 60 [RTN]**	The field must be updated with the new value.	[X] Pass [ ] Fail	Stop Test
17.	Return to "Adaptation Parameter Commands" screen. @ASC: **"<2:[DOWN]> [RTN] [F14]"**	The "Adaptation Parameter Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
18.	Install the Working Adaptation Parameters. @ASC: **"[F9] [SP] [RTN] {wait} [F14]"**	@ASC: Response window then "Adaptation Parameter Commands" screen displayed.	[X] Pass [ ] Fail	Stop Test
19.	Issue the command to display the Continue ADAS. @ASC: **"[F14] [F7] [F9]"**	The start-up option prompt must be displayed.	[X] Pass [ ] Fail	Stop Test
20.	Cycle the display of start-up options. @ASC: **"[SP] [SP] [SP]"**	Verify the 4 start-up options are displayed.	[X] Pass [ ] Fail	Stop Test
21.	Select the Cold Start Option. @ASC: **"[RTN]"**	The specialist verification prompt must be displayed	[X] Pass [ ] Fail	Stop Test
22.	Confirm cold start request and continue startup. @ASC: **"[SP] [RTN]"**	The SI shutdowns and switches over to the Operational State.	[X] Pass [ ] Fail	Stop Test
23.	Login to SI during the Operational State. @ASC 'login': **'si test12'"**	The Specialist Interface Default screen will be displayed.	[X] Pass [ ] Fail	Stop Test
24.	Issue the command to Shutdown ADAS. @ASC: **"[F7] [F8] [SP] [RTN]"**	ADAS confirms request. The ASC indicates shutdown processing. The ADAS Shuts down.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
25.	When shutdown, display & record the system time. @AUC 'adas' prompt: enter **'date'**	The system time date is displayed.	End Time: 15:58:40 [X] Pass [ ] Fail	Stop Test
26.	@AUC 'adas' prompt: enter **"sa"**	ADAS starts into the Initialization State.	[X] Pass [ ] Fail	Stop Test
27.	Login to SI during the Initialization State. @ASC 'login': enter **'isi test12'**	The Specialist Interface Default Screen is displayed.	[X] Pass [ ] Fail	Stop Test
28.	Access the Print Event Log Selection Screen. @ASC: **"[F13] [F11] [RTN]"**	The Print Event Log Selection screen is displayed.	[X] Pass [ ] Fail	Stop Test
29.	Select log for Start & End recorded above. @ASC: **"[DOWN] {Start Time} [RTN] [DOWN] {End Time} [RTN] <2:[DOWN]> [RTN] {wait}**	The Event Log selection is output, the response window is displayed & closed,	[X] Pass [ ] Fail	Stop Test

TEST # **OP-01** TESTED BY: _____ Jock K. Stratton _____ DATE: 05/JAN/98 TIME: 15:48 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	<2:[F14]>"	then the SI default screen is displayed.		
30.	@ASC: Issue the command to Shutdown ADAS. **"[F7] [F8] [SP] [RTN]"**	ADAS confirms shutdown request & shuts down. @ASC: 'login' prompt @AUC: "ADAS is DOWN"	[X] Pass [ ] Fail	Stop Test
31.	Wait 'til the Event Log Report is captured, then: @Patch Panel: Move patch cord from SEP to LOG.	The PC has captured the Event Log Report. The PC will now capture IPS output.	[X] Pass [ ] Fail	Re-connect Patch Cable
32.	@ISC: Issue the command to Shutdown IPS. **"[F14] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
33.	Close Procomm after data's captured. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Re-do Step

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.2. TEST OP-02 - Restart (Auto - Overall Warm)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.2.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-02.)
b.	[XX]	[ ]	The status datapoints information returned from ADAS must show that the "startup" datapoint indicates a warm start overall CR1.
c.	[XX]	[ ]	The METAR generation datapoint must indicate that three Specials were generated CR2.
d.	[XX]	[ ]	The METAR message arriving at WMSCR after the warm start must contain the thunder storm begin additive data CR3 (before example) & CR4 (after).

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-02's Test Conduct Form (TCF) file, "OP-02.TCF".

```
INPUT MESSAGE #:        158
  RECEIVE TIME (ADAS):    03/17/98 18:56:33
+++++++++++++++++++++++++++++++++++++++
21378   RMS ID:               0x01          LOGICAL UNIT ID:      0x20
21380   DATE:               03/17/98        TIME:              18:34:33
21392   DATAPOINT ID:         0x03          CONDITION STATUS:     0x40
21394   PARAMETER VALUE:      (000) Decimal                                CR1

INPUT MESSAGE #:        159
  RECEIVE TIME (ADAS):    03/17/98 18:56:33
+++++++++++++++++++++++++++++++++++++++
22163   RMS ID:               0x01          LOGICAL UNIT ID:      0x26
22165   DATE:               03/17/98        TIME:              18:34:33
22182   DATAPOINT ID:         0x04          CONDITION STATUS:     0x40
22184   PARAMETER VALUE:      (000000002) Decimal                          CR2
```

03/17/98 18:30:04

SPECI K001 171830Z AUTO 04005G15KT 7SM R01/3000FT TS 22/06 A2998 RMK
AO2 TSB30 SLP000 CR3

03/17/98 18:34:04
SPECI K001 171834Z AUTO 04005G15KT 2SM R01/3000FT OVC100 22/06 A2998
RMK AO2 TSB30 SLP000 PWINO FZRANO CR4

C.7.2.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-02.TCF".

TEST # **OP-02** TESTED BY: _____ Jock K. Stratton _____ DATE: 28/AUG/97 TIME: 22:38 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II (1-8A) to the IPS NADIN II (1-9A).	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port (2-6A) to the PC1 port (2-1A).	A patch cable redirects ADAS output to be captured by PC1.	[X] Pass [ ] Fail	Connect Patch Cable
3.	Start data capture. @PC DOS prompt: enter **"cap_itd OP-02"**	Procomm starts, opens the log file, then displays a ready message.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC: login **"isi {RETURN] test12 [RTN]"**	The IPS displays IPS SI (ISI) default screen.	[X] Pass [ ] Fail	Stop Test
7.	@ISC: start test "OP-02" w/ RETRY set to **"YES"**. **"[F8] [F7] OP-02 <13:[RTN]> [SP] <2:[RTN]>"**	@ISC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	All datastores are removed; ADAS Cold Start	[X] Pass [ ] Fail	Stop Test
9.	After ADAS reaches the Operational State, prepare to kill ADAS and induce a warm start. @AUC 'adas' prompt: enter **"kill_csc [SP] ccn [RTN]"**	The AUC will display the prompt "Press Enter to kill then process".	[X] Pass [ ] Fail	Stop Test
10.	Display the IPS event prompt when it occurs at the ISI, press enter at the AUC, wait for the "ADAS is DOWN' message and the acknowledge the ISI event. @ISI: **"<2:[F14]> [F6] {wait} [F7]"** @AUC: **"[RTN] {wait}"** @ISI: **"[F7]"**	The 'kill process' event is displayed. The child death messages appear at the AUC, followed by 'ADAS is DOWN' an auto-restart. The Event Window disappears.	[X] Pass [ ] Fail	Stop Test
11.	When the IPS test terminates, shutdown ADAS.		[X] Pass [ ] Fail	Stop Test

TEST # **OP-02** TESTED BY: _____ Jock K. Stratton _____ DATE: 28/AUG/97 TIME: 22:38 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.		
12.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-02 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
13.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] OP-02 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
14.	@Patch Panel: Move the patch cable connecting to the ADAS SEP (2-6A) to the IPS LOG port (2-7A).	The PC will capture all data sent by the IPS to the Test Log Printer.	[X] Pass [ ] Fail	Stop Test
15.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
16.	After test data is captured, close Procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.3. TEST OP-03 - Restart (Auto Cold Start)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.3.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-03.)
b.	[XX]	[ ]	The initialization mode datapoint must indicate an overall Cold Start occurred CR1.
c.	[XX]	[ ]	The METAR special generation datapoint must indicate one less than the total number of METAR specials generated CR2.
d.	[XX]	[ ]	Any METAR messages arriving at the WMSCR simulator after the shutdown must not contain the thunder storm begin additive data CR3 (before) & CR4 (after).

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-03's Test Conduct Form (TCF) file, "OP-03.TCF".

```
INPUT MESSAGE #:          158
  RECEIVE TIME (ADAS):    08/28/97 23:10:29
+++++++++++++++++++++++++++++++++++++++
21378   RMS ID:              0x01             LOGICAL UNIT ID:       0x20
21380   DATE:              08/28/97           TIME:               23:10:31
21392   DATAPOINT ID:        0x03             CONDITION STATUS:      0x40
21394   PARAMETER VALUE:     (003) Decimal                                   CR1

INPUT MESSAGE #:          159
  RECEIVE TIME (ADAS):    08/28/97 23:10:30
+++++++++++++++++++++++++++++++++++++++
22163   RMS ID:              0x01             LOGICAL UNIT ID:       0x26
22165   DATE:              08/28/97           TIME:               23:10:33
22182   DATAPOINT ID:        0x04             CONDITION STATUS:      0x40
22184   PARAMETER VALUE:     (000000001) Decimal                             CR2

21 1 SPECI K001 282305Z AUTO 04005G15KT 7SM R01/3000FT TS 22/06 A2998 RMK
```

22 1 A02 TSB05 SLP000 CR3

47 2 SPECI K001 282310Z AUTO 04005G15KT 2SM R01/3000FT OVC100 22/06 A2998
48 2 RMK A02_SLP000 CR4

C.7.3.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-03.TCF".

TEST # **OP-03** TESTED BY: _____ Jock K. Stratton _____ DATE: 28/AUG/97 TIME: 23:01 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: **"cap_itd OP-03"**	Procomm starts, opens the log file, then displays a ready message.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars' prompt: enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **enter 'isi'**, then **'test12'**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	@ISC: start test "OP-03" w/ RETRY set to **"YES"**. **"[F8] [F7] OP-03 <13:[RTN]> [SP] <2:[RTN]>"**	ISI Response: Test Started.	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa cold"**	AUC displays date & time, shortly thereafter, indicates login to Initialization State. 60 sec. later, indicates login to Operational State.	[X] Pass [ ] Fail	Stop Test
9.	After ADAS reaches the Operational State, prepare to kill ADAS and induce a cold start. @AUC 'adas' prompt: enter **"kill_csc ccn cold"**	The AUC will display the prompt "Press Enter to kill the process"	[X] Pass [ ] Fail	Stop Test
10.	Display the IPS event prompt when it occurs at the ISI, press enter at the AUC, wait for the "ADAS is DOWN' message and the acknowledge the ISI event. @ISI: **"<2:[F14]> [F6] {wait} [F7]"** @AUC: **"[RTN] {wait}"** @ISI: **"[F7]"**	The 'kill process' event is displayed. The child death messages appear at the AUC, followed by 'ADAS is DOWN' an auto-restart. The Event Window disappears.	[X] Pass [ ] Fail	Stop Test
11.	When the IPS test terminates, shutdown ADAS @AUC 'adas' prompt: enter **'stop_adas'**	The ADAS shuts down.	[X] Pass [ ] Fail	Stop Test

TEST # **OP-03** TESTED BY: _____ Jock K. Stratton _____ DATE: 28/AUG/97 TIME: 23:01 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
12.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-03 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
13.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] OP-03 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
14.	@Patch Panel: Switch the patch cord from the ADAS SEP socket to the IPS LOG socket.	The patch cord redirects IPS printer output to the PC for data capture.	[X] Pass [ ] Fail	Stop Test
15.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
16.	After the data is captured, close procomm. @PC: **"{wait} [F1] [Alt-X] y"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.4. TEST OP-04 - Restart (Auto Warm Start - Maint)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.4.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-04.)
b.	[XX]	[ ]	The initialization mode datapoint must indicate a Maintenance Warm Start occurred CR1.
c.	[XX]	[ ]	The METAR special generation datapoint must indicate that two METAR specials were generated CR2.
d.	[XX]	[ ]	Any METAR messages arriving at the WMSCR simulator after the shutdown must not indicate that a thunder storm has begun CR3 (before) and CR4 (after).

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-04's Test Conduct Form (TCF) file, "OP-04.TCF".

```
INPUT MESSAGE #:         158
  RECEIVE TIME (ADAS):    09/01/97 21:37:31
++++++++++++++++++++++++++++++++++++++++
21378    RMS ID:                   0x01          LOGICAL UNIT ID:       0x20
21380    DATE:                   09/01/97        TIME:                21:37:33
21392    DATAPOINT ID:             0x03          CONDITION STATUS:      0x40
21394    PARAMETER VALUE:         (002) Decimal                                   CR1

INPUT MESSAGE #:         159
  RECEIVE TIME (ADAS):    09/01/97 21:37:31
++++++++++++++++++++++++++++++++++++++++
22163    RMS ID:                   0x01          LOGICAL UNIT ID:       0x26
22165    DATE:                   09/01/97        TIME:                21:37:33
22182    DATAPOINT ID:             0x04          CONDITION STATUS:      0x40
22184    PARAMETER VALUE:         (000000002) Decimal                             CR2

21 1 SPECI K001 012132Z AUTO 04005G15KT 7SM R01/3000FT TS 22/06 A2998 RMK
22 1     A02 TSB32 SLP000                                                         CR3
```

```
47 2 SPECI K001 012137Z AUTO 04005G15KT 2SM R01/3000FT OVC100 22/06 A2998
48 2      RMK A02 SLP000                                                    CR4
```

C.7.4.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-04.TCF".

TEST # **OP-04** TESTED BY: ____ Jock K. Stratton ____ DATE: 01/SEP/97 TIME: 21:28 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the IPS LOG port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter '**cap_itd OP-04**'	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	@ISC: start test "OP-04" w/ RETRY set to **"YES"**. **"[F8] [F7] OP-04 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	After ADAS reaches the Operational State, prepare to induce a warm maintenance restart. @AUC 'adas' prompt: enter '**kill_csc ccn maint**'	The AUC will display the prompt "Press Enter to kill the process"	[X] Pass [ ] Fail	Stop Test
10.	Display the IPS event prompt when it occurs at the ISI, press enter at the AUC, wait for the "ADAS is DOWN' message and the acknowledge the ISI event. @ISI: **"<2:[F14]> [F6] {wait} [F7]"** @AUC: **"[RTN] {wait}"** @ISI: **"[F7]"**	The child death messages will begin to appear on the AUC, followed by an ADAS auto-restart	[X] Pass [ ] Fail	Stop Test
11.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
12.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-04 <2:[RTN]> [SP]**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **OP-04** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 21:28 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	[RTN] S [UP] <2:[RTN]> {wait} [F14]"			
13.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] OP-04 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
14.	@Patch Panel: Move Patch Cord Plug from ADAS SEP to IPS Log port.	The PC will now capture IPS data output.	[X] Pass [ ] Fail	Stop Test
15.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
16.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.5. TEST OP-05 - Restart (Auto Warm Start - Weather)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.5.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-05.)
b.	[XX]	[ ]	The initialization mode datapoint must indicate a Weather Warm Start occurred CR1.
c.	[XX]	[ ]	The METAR special generation datapoint must indicate that two METAR special were generated CR2.
d.	[XX]	[ ]	METAR messages arriving at the WMSCR simulator after the shutdown must indicate that a thunder storm has begun CR3.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-05's Test Conduct Form (TCF) file, "OP-05.TCF".

```
INPUT MESSAGE #:        158
  RECEIVE TIME (ADAS):    09/01/97 21:58:29
+++++++++++++++++++++++++++++++++++++++
21378   RMS ID:              0x01           LOGICAL UNIT ID:      0x20
21380   DATE:              09/01/97         TIME:               21:58:31
21392   DATAPOINT ID:        0x03           CONDITION STATUS:     0x40
21394   PARAMETER VALUE:     (001) Decimal                                  CR1

INPUT MESSAGE #:        159
  RECEIVE TIME (ADAS):    09/01/97 21:58:30
+++++++++++++++++++++++++++++++++++++++
22163   RMS ID:              0x01           LOGICAL UNIT ID:      0x26
22165   DATE:              09/01/97         TIME:               21:58:32
22182   DATAPOINT ID:        0x04           CONDITION STATUS:     0x40
22184   PARAMETER VALUE:     (000000001) Decimal                            CR2

21 1 SPECI K001 012154Z AUTO 04005G15KT 7SM R01/3000FT TS 22/06 A2998 RMK
22 1      A02 TSB54 SLP000                                                  CR3
```

47 2 SPECI K001 012158Z AUTO 04005G15KT 2SM R01/3000FT OVC100 22/06 A2998
48 2 RMK A02 TSB54 SLP000 CR4

C.7.5.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-05.TCF".

TEST # **OP-05** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 21:50 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	**[X]** Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the IPS LOG port to a PC port.	**[X]** Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter **'cap_itd OP-05'**	Procomm starts with the log file open.	**[X]** Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	**[X]** Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	**[X]** Pass [ ] Fail	Stop Test
6.	@**ISC** 'login': enter **'isi'**, then **'test12"**	IPS SI (ISI) starts	**[X]** Pass [ ] Fail	Stop Test
7.	@ISC: start test "OP-05" w/ RETRY set to **YES.** **"[F8] [F7] OP-05 <8:[RTN]> <3:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	**[X]** Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the Operational State.	**[X]** Pass [ ] Fail	Stop Test
9.	After ADAS reaches the Operational State, prepare to induce a warm restart. @AUC 'adas' prompt: enter **'kill_csc ccn wthr'**	The AUC will display the prompt "Press Enter to kill then process"	**[X]** Pass [ ] Fail	Stop Test
10.	Display the IPS event prompt when it occurs at the ISI, press enter at the AUC, wait for the "ADAS is DOWN' message and the acknowledge the ISI event. @ISI: **"<2:[F14]> [F6] {wait} [F7]"** @AUC: **"[RTN] {wait}"** @ISI: **"[F7]"**	The 'kill process' event is displayed. The child death messages appear at the AUC, followed by 'ADAS is DOWN' an auto-restart. The Event Window disappears.	**[X]** Pass [ ] Fail	Stop Test
11.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	**[X]** Pass [ ] Fail	Stop Test
12.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-05 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass [ ] Fail	Stop Test

TEST # **OP-05** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 21:50 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
13.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] OP-05 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
14.	@Patch Panel: Move Patch Cord Plug from the ADAS SEP to the IPS LOG port.	The PC will now capture the IPS output.	**[X]** Pass **[ ]** Fail	Stop Test
15.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
16.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.6. TEST OP-06 - Restart (Manual - Overall Warm)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.6.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-06.)
b.	[XX]	[ ]	The initialization mode datapoint must indicate a Overall Warm Start occurred CR1.
c.	[XX]	[ ]	The METAR special generation datapoint must indicate the total number of METAR specials generated CR2 (= # of CR3 + # of CR4).
d.	[XX]	[ ]	METAR messages arriving at the WMSCR simulator before CR3 and after CR4 the shutdown must indicate that a thunder storm begin.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-06's Test Conduct Form (TCF) file, "OP-06.TCF".

```
INPUT MESSAGE #:        315
  RECEIVE TIME (ADAS):   09/01/97 22:26:30
++++++++++++++++++++++++++++++++++++++++
42743   RMS ID:                0x01            LOGICAL UNIT ID:       0x20
42745   DATE:                09/01/97          TIME:                22:26:33
42757   DATAPOINT ID:          0x03            CONDITION STATUS:      0x40
42759   PARAMETER VALUE:       (000) Decimal                                   CR1

INPUT MESSAGE #:        316
  RECEIVE TIME (ADAS):   09/01/97 22:26:31
++++++++++++++++++++++++++++++++++++++++
43528   RMS ID:                0x01            LOGICAL UNIT ID:       0x26
43530   DATE:                09/01/97          TIME:                22:26:34
43547   DATAPOINT ID:          0x04            CONDITION STATUS:      0x40
43549   PARAMETER VALUE:       (000000002) Decimal                             CR2

21 1 SPECI K001 012220Z AUTO 04005G15KT 7SM R01/3000FT TS 22/06 A2998 RMK
22 1     A02 TSB20 SLP000                                                      CR3
```

47 2 SPECI K001 012226Z AUTO 04005G15KT 2SM R01/3000FT OVC100 22/06 A2998
48 2 RMK A02 TSB20 SLP000 CR4

C.7.6.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-06.TCF".

TEST # **OP-06** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 22:16 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Connect Patch Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the ADAS SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter **'cap_itd OP-06'**	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@**ISC** 'login': enter **'isi'**, then **'test12"**	The ISC Default screen is displayed.	[X] Pass [ ] Fail	Stop Test
7.	@ISC: start test "OP-06" w/ RETRY set to **"YES"**. **"[F8] [F7] OP-06 <13:[RTN]> [RTN] [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS clears the archive, log, & data files. The AUC first displays the date & time, then shortly thereafter, indicates it is OK to Login to the Initialization State.	[X] Pass [ ] Fail	Stop Test
9.	When prompted at the ISC with an ISI event, login to the ASC and shutdown ADAS. @ISC: **"<2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F7] [F8] [SP] [RTN]"**	The IPS event is displayed. ADAS requests confirmation of command. The AUC will indicate that a graceful shutdown was requested, the SI shuts-down.	[X] Pass [ ] Fail	Stop Test
10.	@AUC 'adas' prompt: enter **"sa"**	The AUC first displays the date & time, then shortly thereafter, indicates it is OK to Login to the Initialization State.	[X] Pass [ ] Fail	Stop Test
11.	Login to the ADAS SI during the Initialization State, issue the WARM-Overall Start Up command then acknowledge the IPS event. @ASC: **"si [RTN] test12 [RTN] [F7] [F9] [RTN] [SP] [RTN]"**	The Specialist Interface Default screen will be displayed. The Event Window disappears.	[X] Pass [ ] Fail	Stop Test

TEST # **OP-06** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 22:16 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: **"[F7]"**			
12.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
13.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-06 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
14.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] OP-06 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	@Patch Panel: Move patch cord from ADAS SEP port to the IPS LOG port.	The PC will now capture IPS output.	[X] Pass [ ] Fail	Re-connect Patch Cable
16.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
17.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.7. TEST OP-07 - Restart (Manual - Cold Start)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.7.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-07.)
b.	[XX]	[ ]	The initialization mode datapoint must indicate a Cold Start occurred CR1.
c.	[XX]	[ ]	The METAR special generation datapoint must indicate the number of METAR special messages generated after the re-start CR2 (equals the total number of CR4's).
d.	[XX]	[ ]	WMSCR Metar message received before the shutdown must indicate a thunderstorm begin CR3.
e.	[XX]	[ ]	WMSCR METAR messages arriving after the shutdown must not indicate that a thunder storm has begun CR4.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-07's Test Conduct Form (TCF) file, "OP-07.TCF".

```
INPUT MESSAGE #:        315
  RECEIVE TIME (ADAS):    09/01/97 22:42:31
++++++++++++++++++++++++++++++++++++++
42743   RMS ID:                  0x01            LOGICAL UNIT ID:       0x20
42745   DATE:                  09/01/97          TIME:              22:42:33
42757   DATAPOINT ID:            0x03            CONDITION STATUS:      0x40
42759   PARAMETER VALUE:       (003) Decimal                                      CR1

INPUT MESSAGE #:        316
  RECEIVE TIME (ADAS):    09/01/97 22:42:31
++++++++++++++++++++++++++++++++++++++
43528   RMS ID:                  0x01            LOGICAL UNIT ID:       0x26
43530   DATE:                  09/01/97          TIME:              22:42:34
43547   DATAPOINT ID:            0x04            CONDITION STATUS:      0x40
```

43549 PARAMETER VALUE: (000000001) Decimal |CR2

21 1 SPECI K001 012237Z AUTO 04005G15KT 7SM R01/3000FT TS 22/06 A2998 RMK
22 1 A02 TSB37 SLP000 |CR3

47 2 SPECI K001 012242Z AUTO 04005G15KT 2SM R01/3000FT OVC100 22/06 A2998
48 2 RMK A02 SLP000 |CR4

C.7.7.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-07.TCF".

TEST # **OP-07** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 22:33 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Connect Patch Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the ADAS SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC: Start data capture. **"cap_data [SP] OP-07 [RTN] {wait} [RTN]"**	Procomm starts, opens the log file, then displays a ready message.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@**ISC** 'login': enter **'isi'**, then **'test12"**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "OP-07" w/ RETRY set to **"YES"**. @ISC: **"[F8] [F7] OP-07 <13:[RTN]> [RTN] [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to Initialization State.	[X] Pass [ ] Fail	Stop Test
9.	Display the IPS event prompt when it occurs at the ISI, login the ASC and shutdown ADAS, then acknowledge IPS event. @ISI: **"<2:[F14]> [F6] {wait} [F7]"** @AUC: **"si [RTN] test12 [RTN] [F7] [F8] [SP] [RTN]"**	The AUC will indicate that a graceful shutdown was requested, SI shuts-down.	[X] Pass [ ] Fail	Stop Test
10.	@AUC 'adas' prompt: enter **"sa"**	ADAS starts to Initialization State.	[X] Pass [ ] Fail	Stop Test
11.	Login to SI during the Initialization State, issue the to ADAS Cold Start Continue command, then acknowledge the IPS Event. @ASC: **"si [RTN] test12 [RTN] [F7] [F9] [SP] [SP] [SP] [RTN] [SP] [RTN]"** @ISC: **"[F7]"**	The Specialist Interface screen will be displayed. The SI will indicate a cold start has been requested .	[X] Pass [ ] Fail	Stop Test
12.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"**	The ISI displays it's default screen.	[X] Pass [ ] Fail	Stop Test

TEST # **OP-07** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 22:33 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@AUC: **"stop_adas [RTN]"**	The AUC indicates the ADAS is DOWN.		
13.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-07 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
14.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] OP-07 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
15.	@Patch Panel: Move patch cord from ADAS SEP port to the IPS LOG port.	The PC will now capture IPS output.	**[X]** Pass **[ ]** Fail	Re-connect Patch Cable
16.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
17.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - **END OF TEST PROCEDURE** - - - - **END OF TEST PROCEDURE** - - - - **END OF TEST PROCEDURE** - - - - **END OF TEST PROCEDURE** - - - -

C.7.8. TEST OP-08 - Restart (Manual Warm Start - Maint)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.8.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-08.)
b.	[XX]	[ ]	The initialization mode Data Point must indicate a Maintenance Warm Start occurred CR1.
c.	[XX]	[ ]	The METAR special generation Data Point must indicate that three METAR specials were generated CR2.
d.	[XX]	[ ]	METAR messages arriving at the WMSCR simulator after the shutdown must not indicate that a thunder storm has begun CR3.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-08's Test Conduct Form (TCF) file, "OP-08.TCF".

```
INPUT MESSAGE #:        315
  RECEIVE TIME (ADAS):    09/01/97 22:55:31
++++++++++++++++++++++++++++++++++++++
42743   RMS ID:               0x01          LOGICAL UNIT ID:      0x20
42745   DATE:               09/01/97        TIME:               22:55:32
42757   DATAPOINT ID:         0x03          CONDITION STATUS:     0x40
42759   PARAMETER VALUE:      (002) Decimal                                   CR1

INPUT MESSAGE #:        316
  RECEIVE TIME (ADAS):    09/01/97 22:55:31
++++++++++++++++++++++++++++++++++++++
43528   RMS ID:               0x01          LOGICAL UNIT ID:      0x26
43530   DATE:               09/01/97        TIME:               22:55:33
43547   DATAPOINT ID:         0x04          CONDITION STATUS:     0x40
43549   PARAMETER VALUE:      (000000002) Decimal                             CR2

21 1 SPECI K001 012250Z AUTO 04005G15KT 7SM R01/3000FT TS 22/06 A2998 RMK
22 1      A02 TSB50 SLP000                                                    CR3
```

```
47 2 SPECI K001 012255Z AUTO 04005G15KT 2SM R01/3000FT OVC100 22/06 A2998
48 2      RMK A02_SLP000                                                        CR4
```

C.7.8.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-08.TCF".

TEST # **OP-08** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 22:46 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	**[X]** Pass **[ ]** Fail	Connect Patch Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the ADAS SEP port to a PC port.	**[X]** Pass **[ ]** Fail	Connect Patch Cable
3.	@PC DOS prompt: enter '**cap_itd OP-08**'	Procomm starts with the log file open.	**[X]** Pass **[ ]** Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	**[X]** Pass **[ ]** Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	**[X]** Pass **[ ]** Fail	Stop Test
6.	@**ISC** 'login': enter '**isi**', then '**test12**'	The ISC Default screen is displayed.	**[X]** Pass **[ ]** Fail	Stop Test
7.	@ISC: start test "OP-08" w/ RETRY set to **"YES"**. **"[F8] [F7] OP-08 <13:[RTN]> [RTN] [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	**[X]** Pass **[ ]** Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS clears the archive, log, & data files. The AUC first displays the date & time, then shortly thereafter, indicates it is OK to Login to the Initialization State.	**[X]** Pass **[ ]** Fail	Stop Test
9.	When prompted at the ISC with an ISI event, login to the ASC and shutdown ADAS. @ISC: **"<2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F7] [F8] [SP] [RTN]"**	The IPS event is displayed. ADAS requests confirmation of command. The AUC will indicate that a graceful shutdown was requested, the SI shuts-down.	**[X]** Pass **[ ]** Fail	Perform Error Step
10.	<u>Error Step:</u> If the ADAS does not gracefully shut down after 2 and a half minutes, then @AUC 'adas' prompt: enter **"stop_adas"**	The ADAS shuts down.	[ ] Forced Shutdown	Continue
11.	@AUC 'adas' prompt: enter **"sa"**	The AUC first displays the date & time, then shortly thereafter, indicates it is OK to Login to the Initialization State.	**[X]** Pass **[ ]** Fail	Stop Test
12.	Login to ADAS during the Initialization State, issue the WARM-Maintenance Start Up	The Specialist Interface Default screen will be displayed.	**[X]** Pass **[ ]** Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	command then acknowledge the IPS event. @ASC: **"si [RTN] test12 [RTN] [F7] [F9] [SP] [RTN] [SP] [RTN]"** @ISC: **"[F7]"**	The Event Window disappears.		
13.	When the ips test terminateS, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
14.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-08 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] OP-08 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
16.	@Patch Panel: Move patch cord from ADAS SEP port to the IPS LOG port.	The PC will now capture IPS output.	[X] Pass [ ] Fail	Re-connect Patch Cable
17.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
18.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.9. TEST OP-09 - Restart (Manual Warm Start Weather)

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.9.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-09.)
b.	[XX]	[ ]	The initialization mode Data Point must indicate a Weather Warm Start occurred CR1.
c.	[XX]	[ ]	The METAR special generation Data Point must indicate that two METAR special was generated CR2.
d.	[XX]	[ ]	METAR messages arriving at the WMSCR simulator after the shutdown must indicate that a thunder storm has begun CR3.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-09's Test Conduct Form (TCF) file, "OP-09.TCF".

```
INPUT MESSAGE #:          315
  RECEIVE TIME (ADAS):    09/01/97 23:15:30
+++++++++++++++++++++++++++++++++++++++
42743   RMS ID:                0x01          LOGICAL UNIT ID:       0x20
42745   DATE:                09/01/97        TIME:                23:15:33
42757   DATAPOINT ID:          0x03          CONDITION STATUS:      0x40
42759   PARAMETER VALUE:       (001) Decimal                                  CR1

INPUT MESSAGE #:          316
  RECEIVE TIME (ADAS):    09/01/97 23:15:30
+++++++++++++++++++++++++++++++++++++++
43528   RMS ID:                0x01          LOGICAL UNIT ID:       0x26
43530   DATE:                09/01/97        TIME:                23:15:33
43547   DATAPOINT ID:          0x04          CONDITION STATUS:      0x40
43549   PARAMETER VALUE:       (000000001) Decimal                            CR2

21 1 SPECI K001 012309Z AUTO 04005G15KT 7SM R01/3000FT TS 22/06 A2998 RMK
22 1     A02 TSB09 SLP000                                                     CR3
```

47 2 SPECI K001 012315Z AUTO 04005G15KT 2SM R01/3000FT OVC100 22/06 A2998
48 2 RMK A02 TSB09 SLP000 CR4

C.7.9.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-09.TCF".

TEST # **OP-09** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 23:05_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	**[X]** Pass [ ] Fail	Connect Patch Cable
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the ADAS SEP port to a PC port.	**[X]** Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter **'cap_itd OP-09'**	Procomm starts with the log file open.	**[X]** Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	**[X]** Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	**[X]** Pass [ ] Fail	Stop Test
6.	@**ISC** 'login': enter **'isi'**, then '**test121**	The ISC Default screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
7.	@ISC: start test "OP-09" w/ RETRY set to **"YES"**. **"[F8] [F7] OP-09 <13:[RTN]> [RTN] [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	**[X]** Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS clears the archive, log, & data files. The AUC first displays the date & time, then shortly thereafter, indicates it is OK to Login to the Initialization State.	**[X]** Pass [ ] Fail	Stop Test
9.	When prompted at the ISC with an ISI event, login to the ASC and shutdown ADAS. @ISC: **"<2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F7] [F8] [SP] [RTN]"**	The IPS event is displayed. ADAS requests confirmation of command. The AUC will indicate that a graceful shutdown was requested, the SI shuts-down.	**[X]** Pass [ ] Fail	Stop Test
10.	@AUC 'adas' prompt: enter **"sa"**	The AUC first displays the date & time, then shortly thereafter, indicates it is OK to Login to the Initialization State.	**[X]** Pass [ ] Fail	Stop Test
11.	Login to the ADAS SI during the Initialization State, issue the WARM-Weather Start Up command then acknowledge the IPS event. @ASC: **"si [RTN] test12 [RTN] [F7] [F9] [SP] [SP] [RTN] [SP] [RTN]"**	The Specialist Interface Default screen will be displayed. The Event Window disappears.	**[X]** Pass [ ] Fail	Stop Test

TEST # **OP-09** TESTED BY: _____ Jock K. Stratton _____ DATE: 01/SEP/97 TIME: 23:05_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: **"[F7]"**			
12.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
13.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-09 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
14.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] OP-09 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	@Patch Panel: Move patch cord from ADAS SEP port to the IPS LOG port.	The PC will now capture IPS output.	[X] Pass [ ] Fail	Re-connect Patch Cable
16.	Issue the command to shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
17.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.10. TESTS OP-10 & OP-11 - ASC Display

The following paragraphs provide information about data associated with these tests but not included within the main body of this report.

C.7.10.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

The formal test data for these tests are the Test Conduct Forms (TCFs) completed by the test operator during Formal Test Run execution. The TCF files for these tests are "OP-10.TCF" and "OP-11.TCF".

C.7.10.2. TCF Test Procedure Steps

The test procedure steps for these tests are not included herein for the following reasons:

1) Numerous test procedure step failures during formal testing, detailed in PTR OTE-045, due to improper indexing into the Context Sensitive Help file.

2) The Full-scope ASC Display (OP-10) TCF file, "OP-10.TCF", is approximately 200 pages in length.

3) The Limited-scope ASC Display (OP-11) TCF file, "OP-11.TCF", in nearly 60 pages in length.

4) Correction of PTR OTE-045 has been deferred to the ADAS Y2K build.

C.7.11. TEST OP-13 - Normal Event Logging

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.11.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

Pass Fail

a. [XX] [ ] Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-13.)

b. [XX] [ ] The Events contained in the ADAS Event log must show that each entry contains the event number as in CR1, date /time as in CR2, priority as in CR3 and description as in CR4.

c. [XX] [ ] Each minute, the error messages returned by DLP generate an event type 21, as in CR5 through CR12.

d. [XX] [ ] Each event type 21 should indicate a non-critical event priority, as in CR3A.

e. [XX] [ ] The event description must accurately identify the event CR4.

f. [XX] [ ] The operational mode datapoint must always indicate a mode of 'FULL'. even after the Mode Selection Switch was switched to 'UNATTENDED' mode. CR18 & CR19 Verify that no reduced operational mode indication was given during the time the Control Panel Switch was set to 'UNATTENDED'. Verify that all input and output at the ADAS Unix Console (AUC) was redirected to the printer when in 'UNATTENDED' mode', as in CR20.

The following data marked with evaluation criteria cross-reference numbers is a subset of the relevant OT&E formal test run data that has been included into OP-13's Test Conduct Form (TCF) file, "OP-13.TCF".

```
adas : /usr/adas/adastest -> echo Unattended Mode PTR Test
Unattended Mode PTR Test

...........................................................................
. 02-12-98  00:27:04  . Events:   2 . Responses:   0 .  DATAPOINT CMDS   .
...........................................................................
                     DISPLAY RMS MASTER/OVERALL LU DATAPOINTS
                                               ALERT      ALARM
   DATAPOINT NAME          ID    VALUE      CURR PAST CURR PAST   LAST RESET

  SYSTEM STATE:               01 OPERATIONAL                          02-12-98
00:20:38
  OPERATIONAL MODE:          02 FULL        CR19                     02-12-98
00:20:38
  INITIALIZATION MODE:      03 COLD                                   02-12-98
00:20:38
  RMS/MAINT RESET:           04    None                               02-12-98
00:20:38
  SPECIALIST LOGON:          05 REMOTE/LOG OFF                        02-12-98
00:20:38

              ALERT THRESHOLDS                      ALARM THRESHOLDS
        UPPER        LOWER        ENAB        UPPER        LOWER        ENAB
          -1           -1         YES           -1           -1         YES

  PRESS UP/DOWN ARROW KEYS TO POSITION AND TO DISPLAY THRESHOLDS.
```

```
.......................................................................
. SCROLL    SCROLL                                       PREVIOUS      .
.                                                                 EXIT .
.   UP        DOWN                                        SCREEN       .
... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... F14
```

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-12-98 00:21:03
EVENT SEQ. NUMBER: 68   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 1
error offset: 0

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-12-98 00:22:03
EVENT SEQ. NUMBER: 250   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 2
error offset: 53

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-12-98 00:23:04
EVENT SEQ. NUMBER: 258   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 3
error offset: 106

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-12-98 00:24:03
EVENT SEQ. NUMBER: 266   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 4
error offset: 159

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-12-98 00:25:03
EVENT SEQ. NUMBER: 273   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 5
error offset: 212

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-12-98 00:26:03
EVENT SEQ. NUMBER: 285   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 6

error offset: 265

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-12-98 00:27:03
EVENT SEQ. NUMBER: 292   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 7
error offset: 318

EVENT PRIORITY: non-critical   DATE/TIME STAMP: 02-12-98 00:28:03
EVENT SEQ. NUMBER: 301   EVENT TYPE: 21   CSC ID: 11.02
An erroneous message has been triggered by System Logging.

message type: ADAS received error message
error type: DLP error message   error code: DLP invalid ADU type rcvd
original csc id: 4.07   error number: 8
error offset: 371

. 02-12-98 00:28:51 . Events: 4 . Responses: 0 . EVENT/ERROR CMDS .

EVENT LOG DATA REQUEST FOR PRINTER OUTPUT

PRIMARY SEARCH KEY DATA:
START DATE: 02/12/98   STOP DATE: 02/12/98
START TIME: 00:00:00   STOP TIME: 00:28:43

SECONDARY SEARCH KEY DATA:
BEGIN EVENT SEQUENCE NUMBER: 0
END EVENT SEQUENCE NUMBER: 0
EVENT TYPE: 49

ENTER INTEGER VALUE FOR THE EVENT TYPE NUMBER.

EXIT.
... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... F14 .

. 02-12-98 00:28:53 . Events: 4 . Responses: 0 . EVENT/ERROR CMDS .

RESPONSE CONTROL MESSAGE STATUS

COMMAND NAME: [REPORT EVNT/ERR LOG]
RESPONSE STATUS: FAILURE
REMARKS: THERE IS NO EVENT/ERROR LOG DATA MATCHING THE SEARCH KEYS.
CR14

. PRESS EXIT KEY TO QUIT WINDOW.

EXIT.
... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... F14 .

INPUT MESSAGE #: 1
RECEIVE TIME (ADAS): 02/12/98 00:21:21
+++++++++++++++++++++++++++++++++++++++
13 RMS ID: 0x01   LOGICAL UNIT ID: 0x20
15 DATE: 02/12/98   TIME: 00:21:20

```
22    DATAPOINT ID:          0x02      CONDITION STATUS:    0x40
24    PARAMETER VALUE:       (000) Decimal
27    DATAPOINT ID:          0x03      CONDITION STATUS:    0x40
29    PARAMETER VALUE:       (003) Decimal

INPUT MESSAGE #:        158
  RECEIVE TIME (ADAS):    02/12/98 00:30:08
++++++++++++++++++++++++++++++++++++++
21378    RMS ID:                 0x01   LOGICAL UNIT ID:       0x20
21380    DATE:                 02/12/98 TIME:                00:30:09
21387    DATAPOINT ID:           0x02   CONDITION STATUS:      0x40
21389    PARAMETER VALUE:        (000) Decimal
21392    DATAPOINT ID:           0x03   CONDITION STATUS:      0x40
21394    PARAMETER VALUE:        (003) Decimal

21 1 SPECI K001 120021Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
22 1      AO2 SLP000

47 2 SPECI K001 120022Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
48 2      AO2 SLP000

73 3 SPECI K001 120023Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
74 3      AO2 SLP000

99 4 SPECI K001 120024Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
100 4      AO2 SLP000

125 5 SPECI K001 120025Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
126 5      AO2 SLP000

151 6 SPECI K001 120026Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
152 6      AO2 SLP000

177 7 SPECI K001 120027Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
178 7      AO2 SLP000

203 8 SPECI K001 120028Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
204 8      AO2 SLP000

229 9 SPECI K001 120029Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
230 9      AO2 SLP000

255 10 SPECI K001 120030Z AUTO 04005G15KT 7SM R01/3000FT 22/06 A2998 RMK
256 10      AO2 SLP000
```

C.7.11.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-13.TCF".

TEST # **OP-13** TESTED BY: _____ Jock K. Stratton _____ DATE: 12/FEB/98 TIME: 00:17 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify ADAS/IPS NADIN II connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A cable redirects the SEP port to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter '**cap_itd OP-13**'	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars' prompt: enter '**si**'	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
	@AUC 'adas' prompt: enter '**cl 51**'	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
5.	@ISC 'login': enter '**isi test12**'	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
6.	Start IPS test "OP-13" w/ RETRY set to "YES". @ISC: "**[F8] [F7] OP-13 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
7.	@AUC 'adas' prompt: enter "**sa clean**"	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
8.	After ADAS updates MPS, switch to Unattended Mode. @IUC: "**{wait for 'PONG 4' dump}**" @ADAS Control Panel: Turn Mode Knob to "U"	The Pong 4 dump usually during the second complete mission cycle. The ADAS is switched to Unattended Mode.	[X] Pass [ ] Fail	Stop Test
9.	After 3 min., print the RMS Master Datapoint screen. @ASC 'login': enter '**si test12**' @ASC: "**[F10] [F7] [DOWN] [RTN] [F2]**"	The SI default screen is displayed. The RMS Master dp screen is displayed. No Output is captured by the PC.	[X] Pass [ ] Fail	Stop Test
10.	Enter AUC test command. @AUC: "**echo [SP] PTR [SP] Test [RTN]**"	The PC captures the AUC keyboard input and screen output.	[X] Pass [ ] Fail	Stop Test
11.	Switch to Attended Mode and capture the SI screen. @ADAS Control Panel: Turn Mode Knob to "A" @ASC: "**[F2]**"	The ADAS is switched to Attended Mode. The PC captures the RMS Master dp screen.	[X] Pass [ ] Fail	Stop Test
12.	When the IPS prompts: display event, report event types 21 & 49, logout, then ack the IPS event.	The event is displayed at the ISI.		

TEST # **OP-13** TESTED BY: _____ Jock K. Stratton _____ DATE: 12/FEB/98 TIME: 00:17 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISI: **"<2:[F14]> [F6] {wait} [F7]"** @ASC: **"<2:[F14]> [F13] [F11] <7:[RTN]> 21 [RTN] {wait} [F14] [F11] <7:[RTN]> 49 [F2] [RTN] {wait} [F2] <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The PC captures the report output. The PC captures the screen prints only. The AUC displays a 'login' prompt. The event window closes.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
13.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
14.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] [F8] [F7] OP-13 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The output message log screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	Output the IML: WMSCR METAR to file . @ISC: **"[F7] OP-13 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
16.	@Patch Panel: Redirect the IPS LOG output to PC.	The cable redirects the IPS LOG to a PC.	[X] Pass [ ] Fail	Redo Step
17.	Shutdown the IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test
18.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.12. TEST OP-14 - Extraordinary Event Log

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.12.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-14.)
b.	[XX]	[ ]	The ADAS Event log must show the events for the CTS time shift, event type 9, as in CR1, CR2, & CR3.
c.	[XX]	[ ]	The ADAS Event log must show the events for the AWOS error responses, event type 21, as in CR8 & CR9.
d.	[XX]	[ ]	The ADAS Event log must show the events for the WMSCR communications status changes, event type 12, as in CR4, CR5, CR6, & CR7.
e.	[XX]	[ ]	Each event must indicate its' priority.
f.	[XX]	[ ]	Event descriptions must accurately describe the event.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-14's Test Conduct Form (TCF) file, "OP-14.TCF".

```
EVENT PRIORITY: non-critical    DATE/TIME STAMP: 01-05-98 19:27:18
EVENT SEQ. NUMBER: 243    EVENT TYPE: 9      CSC ID: 2.01
ADAS time has been reset by CTM.

  current time: 01-05-98  19:27:16
  new time: 01-05-98  19:27:18                                      CR1

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 01-05-98 20:06:11
EVENT SEQ. NUMBER: 260    EVENT TYPE: 9      CSC ID: 2.01
ADAS time has been reset by CTM.

  current time: 01-05-98  19:28:13
  new time: 01-05-98  20:06:11                                      CR2

EVENT PRIORITY: non-critical    DATE/TIME STAMP: 01-05-98 20:15:13
```

EVENT SEQ. NUMBER: 298 EVENT TYPE: 9 CSC ID: 2.01
ADAS time has been reset by CTM.

current time: 01-05-98 20:09:12
new time: 01-05-98 20:15:13 CR3

EVENT PRIORITY: non-critical DATE/TIME STAMP: 01-05-98 19:25:14
EVENT SEQ. NUMBER: 39 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-failed CR4

EVENT PRIORITY: non-critical DATE/TIME STAMP: 01-05-98 19:25:26
EVENT SEQ. NUMBER: 45 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-active CR5

EVENT PRIORITY: non-critical DATE/TIME STAMP: 01-05-98 20:09:07
EVENT SEQ. NUMBER: 287 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-failed CR6

EVENT PRIORITY: non-critical DATE/TIME STAMP: 01-05-98 20:15:38
EVENT SEQ. NUMBER: 299 EVENT TYPE: 12 CSC ID: 5.01
Status of the WMSCR connection has changed.

comm status: enabled-active CR7

EVENT PRIORITY: non-critical DATE/TIME STAMP: 01-05-98 20:07:04
EVENT SEQ. NUMBER: 262 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

interface id: K002 message type: ADAS received erroneous message
error type: AWOS test message error code: ADU header error
original csc id: 3.02 error number: 1
error offset: 0 CR8

EVENT PRIORITY: non-critical DATE/TIME STAMP: 01-05-98 20:08:07
EVENT SEQ. NUMBER: 278 EVENT TYPE: 21 CSC ID: 11.02
An erroneous message has been triggered by System Logging.

interface id: K002 message type: ADAS received erroneous message
error type: AWOS test message error code: ADU header error
original csc id: 3.02 error number: 2
error offset: 100 CR9

C.7.12.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-14.TCF".

TEST # **OP-14** TESTED BY: ____ Jock K. Stratton ____ DATE: 05/JAN/98 TIME: 19:21 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	**[X]** Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	**[X]** Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter **'cap_itd OP-14'**	Procomm starts, with the log file opened.	**[X]** Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	**[X]** Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	**[X]** Pass [ ] Fail	Stop Test
6.	@ISC 'login': **enter 'isi'**, then 'test12'	The IPS SI (ISI) starts.	**[X]** Pass [ ] Fail	Stop Test
7.	Start IPS test "OP-14" w/ RETRY set to YES. @ISC: **"[F8] [F7] OP-14 <13:[RTN]>** [SP] **<2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	**[X]** Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	ADAS starts to the Operational State.	**[X]** Pass [ ] Fail	Stop Test
9.	After ADAS updates MPS, login to the ADAS SI. @ASC 'login': **"si [RTN] test12 [RTN]"**	The Specialist Interface Default screen will be displayed.	**[X]** Pass [ ] Fail	Stop Test
10.	Wait for, and acknowledge IPS event. @ISC: **"<2:[F14]> [F6] {wait} <2:[F7]>"**	The IPS displays an ISI event.	**[X]** Pass [ ] Fail	Stop Test
11.	When prompted by IPS, login, report event types 9, 12, & 21 entries, logout, then ack IPS. @ISI: **"{wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 9 [RTN] {wait} [F14] [F11] <7:[RTN]> 12 [RTN] {wait} [F14] [F11] <7:[RTN]> 21 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The ADAS Specialist Interface starts up. The PC captures the report output(s). The ASC displays the 'login' prompt. The event is removed from the ISI.	**[X]** Pass [ ] Fail	Stop Test
12.	After the IPS test terminates, Shutdown ADAS. @ASC: **"[F7] [F8] [SP] [RTN]"**	The AUC indicates ADAS is down.	**[X]** Pass [ ] Fail	Stop Test
13.	Reset the IPS test time offset.	The IPS test time offset is reset to 0.	**[X]** Pass [ ] Fail	Stop Test

TEST # **OP-14** TESTED BY: _____ Jock K. Stratton _____ DATE: 05/JAN/98 TIME: 19:21 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: "**[F8] [F11] [SP] [RTN]**"			
14.	@Patch Panel: Redirect the IPS LOG output to the PC.	A cable redirects printer output to a PC.	**[X]** Pass **[ ]** Fail	Redo Step
15.	Issue the command to Shutdown IPS. @ISC: "**[F8] [F10] [SP] [RTN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass **[ ]** Fail	Stop Test
16.	After the data is captured, close procomm. @PC: "**{wait} [Alt-F1] [Alt-X] [RTN]**"	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test
17.	@IUC 'aldars' prompt: enter "**setdate**".	The IPS outputs 10 digit date/time in the format MMDDhhmmYY format.	**[X]** Pass **[ ]** Fail	Stop Test
18.	@AUC 'adas' prompt: enter "**setdate [SP] {the 10 digits output by IPS @IUC}**".	The ADAS system date/time is reset to the current date/time.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.13. TEST OP-15 - ASC Alarm Control

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.13.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-15.)
b.	[XX]	[ ]	Successful completion of the manual procedures for this test case indicates the datapoints that had their thresholds altered and the Alarm/Alert disabled did not report an alarm to the ASC.
c.	[XX]	[ ]	Successful completion of the manual procedures for this test case indicates datapoints that were altered and the Alarm/Alert re-enabled did report an Alarm/Alert to the ASC.
d.	[XX]	[ ]	When reset, the counter style datapoints that were in Alarm or Alert must indicate being reset in the next update to the MPS simulator after the operator logs out of the ADAS SI. Use the Reset All timestamp CR1. DLP LU 29 DP 04 CR2 < CR4, AWOS LU41 DP 0A CR3 < CR5.
e.	[XX]	[ ]	After the AM Resources datapoint was enabled CR6, an EVENT TYPE 18 must be sent to the SI CR7, and the RMS Master/os_stat datapoint (LU 20 DP 08) must indicate an alarm (value=02) CR8.
f.	[XX]	[ ]	Successful completion of the manual procedures for this test case indicates the reset initialized the date/time register.

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been included into OP-15's Test Conduct Form (TCF) file, "OP-15.TCF".

```
.........................................................................
.  09-04-97  21:26:04  . Events:    1 . Responses:    0 .  DATAPOINT CMDS  .
...................... RESPONSE CONTROL MESSAGE STATUS .....................
.                                                                         .
.      COMMAND NAME:  [ENABLE/DISABLE DATAPTS]                            .
```

. ELEMENT UPDATED: OPERATING SYSTEM LU DATAPOINTS .
. RESPONSE STATUS: SUCCESS .
. REMARKS: RESPONSE SUCCESSFUL! REQUEST PROPERLY PROCESSED. CR6 .

....
.
. 09-04-97 21:27:36 . Events: 7 . Responses: 0 . ESCAPE CMDS
.
.... DISPLAY NEXT EVENT MESSAGE
....
.EVENT PRIORITY: non-critical DATE/TIME STAMP: 09-04-97 21:27:06
.
.EVENT SEQ. NUMBER: 513 EVENT TYPE: 18 CSC ID: 10.01
.
.An alarm/alert condition has been triggered by maintenance datapoints.
.
.
.
. logical unit: Operating System dp item: access monitor resources
.
. status: Alarmed
.
. Initiated by: ADAS Maintenance Phase value: 2983
.
. alarm thresh-lower: 2999
.
. alert thresh-lower: 600 CR7
.

....
.
. 09-04-97 21:29:59 . Events: 0 . Responses: 0 . DATAPOINT CMDS
.
.... RESPONSE CONTROL MESSAGE STATUS
....
.
.
. COMMAND NAME: [RESET DATAPTS]
.
. ELEMENT UPDATED: ALL LOGICAL UNIT (LU) DATAPOINTS
.
. RESPONSE STATUS: SUCCESS
.
. REMARKS: RESPONSE SUCCESSFUL! REQUEST PROPERLY PROCESSED. CR1
.

INPUT MESSAGE #: 629
RECEIVE TIME (ADAS): 09/04/97 21:29:06
++

85473	RMS ID:	0x01	LOGICAL UNIT ID:	0x20
85475	DATE:	09/04/97	TIME:	21:29:08
85507	DATAPOINT ID:	0x08	CONDITION STATUS:	0x42
85509	PARAMETER VALUE:	(002) Decimal		

CR8

INPUT MESSAGE #: 637
RECEIVE TIME (ADAS): 09/04/97 21:29:07
++

86663	RMS ID:	0x01	LOGICAL UNIT ID:	0x29

```
86665  DATE:                    09/04/97          TIME:                    21:29:08
86682  DATAPOINT ID:            0x04              CONDITION STATUS:        0x43
86684  PARAMETER VALUE:         (000000017) Decimal                                  CR4

INPUT MESSAGE #:         649
  RECEIVE TIME (ADAS):   09/04/97 21:29:09
++++++++++++++++++++++++++++++++++++++++
88343  RMS ID:                  0x01              LOGICAL UNIT ID:         0x41
88345  DATE:                    09/04/97          TIME:                    21:29:08
88392  DATAPOINT ID:            0x0a              CONDITION STATUS:        0x43
88394  PARAMETER VALUE:         (000000017) Decimal                                  CR5

INPUT MESSAGE #:         794
  RECEIVE TIME (ADAS):   09/04/97 21:33:08
++++++++++++++++++++++++++++++++++++++++
108028  RMS ID:                 0x01              LOGICAL UNIT ID:         0x29
108030  DATE:                   09/04/97          TIME:                    21:33:08
108047  DATAPOINT ID:           0x04              CONDITION STATUS:        0x43
108049  PARAMETER VALUE:        (000000002) Decimal                                  CR2

INPUT MESSAGE #:         806
  RECEIVE TIME (ADAS):   09/04/97 21:33:10
++++++++++++++++++++++++++++++++++++++++
109708  RMS ID:                 0x01              LOGICAL UNIT ID:         0x41
109710  DATE:                   09/04/97          TIME:                    21:33:08
109757  DATAPOINT ID:           0x0a              CONDITION STATUS:        0x43
109759  PARAMETER VALUE:        (000000004) Decimal                                  CR3
```

C.7.13.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-15.TCF".

TEST # **OP-15** TESTED BY: _____ Jock K. Stratton _____ DATE: 04/SEP/97 TIME: 21:06 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter '**cap_itd OP-15**'	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 51**"	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	"**isi**" @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	@ISC: start test "OP-15". "**[F8] [F7] OP-15 <8:[RTN]> <3:[RTN]> [SP] <2:[RTN]> {wait} <2:[RTN]> <2:[F14]>**"	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter "**sa clean**"	ADAS clears the archive, log, & data files. The AUC first displays the date & time, then shortly thereafter, indicates it is OK to Login to the Initialization State.	[X] Pass [ ] Fail	Stop Test
9.	Login to the Initialization State; Change the Upper Alert Datapoint Threshold for DLP & Warp Rejected Msgs, MPS Erroneous Msgs, and AWOS #1 Error Msgs to a value of 10; then continue ADAS with a Cold Start. @ASC: "**si [RTN] test12 [RTN] [F8] [F8] DD [RTN] D [RTN] <3:[DOWN]> [RTN] 10 [F7] {wait} [F13] [RTN] W [RTN] <3:[DOWN]> [RTN] 10 [F7] {wait} [F13] [RTN] M [RTN] <3:[DOWN]> [RTN] 10 [F7] {wait} [F13] [RTN] A [RTN] [Shft-K] 001 [RTN] <9:[DOWN]> [RTN] 10 [F7] {wait} [F14] [F9] [SP] [RTN] <2:[F14]> [F7] [F9] [RTN] [SP] [RTN]**"	The Specialist interface is started, the 4 datapoint thresholds are updated and installed, and ADAS continues with a cold start. The ASC displays a login prompt.	[X] Pass [ ] Fail	Stop Test

TEST # **OP-15** TESTED BY: _____ Jock K. Stratton _____ DATE: 04/SEP/97 TIME: 21:06 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
10.	Wait until ADAS makes a complete MPS update {'pong 4' dump at the IUC} then login to ADAS. @IUC: **"{wait for pong4 dump}"** @ASC: **"si [RTN] test12 [RTN]"**	@IUC: The IPS displays a pong4 dump. @ASC: The ADAS SI is displayed.	[X] Pass [ ] Fail	Stop Test
11.	Reset all datapoints. @ASC: **"[F10] [F8] <2:[DOWN]> [RTN] {wait} [F2] <2:[F14]>"**	All datapoints are reset.	[X] Pass [ ] Fail	Stop Test
12.	Log off ADAS Specialist Interface. @ASC: **"[F14] [SP] [RTN]"**	The UNIX login prompt is displayed.	[X] Pass [ ] Fail	Stop Test
13.	Wait until ADAS makes a complete MPS update {'pong 4' dump at the IUC} then login to ADAS. @IUC: **"{wait for pong4 dump}"** @ASC: **"si [RTN] test12 [RTN]"**	@IUC: The IPS displays a pong4 dump. @ASC: The ADAS SI is displayed.	[X] Pass [ ] Fail	Stop Test
14.	Disable the Operating System - AM Resources Alarm datapoint. @ASC: **"[F10] [F10] [RTN] O [RTN] <4:[DOWN]> [RTN] [RIGHT] [SP] [F7] {wait} [F2] [F13]"**	The datapoint is disabled. The response window closes. The "Enable / Disable Logical Unit Datapoints Individually" screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	Disable the Hardware - Disk Space Alarm datapoint. @ASC: **"H [RTN] [DOWN] [RTN] [RIGHT] [SP] [F7] {wait} [F2] [F13]"**	The datapoint is disabled. the response window closes. The "Enable Disable Logical Unit Datapoints Individually" screen is displayed.	[X] Pass [ ] Fail	Stop Test
16.	Disable the DLP Communications Datapoint DLP Rejected Messages Alert. @ASC: **"D [RTN] <3:[DOWN]> [RTN] [SP] [F7] {wait} [F2] [F13]"**	The datapoint is disabled. the response window closes. The "Enable Disable Logical Unit Datapoints Individually" screen is displayed.	[X] Pass [ ] Fail	Stop Test
17.	Disable the MPS Communications Datapoint MPS Rejected Messages Alert. @ASC: **"M [RTN] <3:[DOWN]> [RTN] [SP] [F7] {wait} [F2] [F13]"**	The datapoint is disabled. the response window closes. The "Enable Disable Logical Unit Datapoints Individually" screen is displayed.	[X] Pass [ ] Fail	Stop Test
18.	Disable the WARP Communications Datapoint WARP Rejected Messages Alert. @ASC: **"W [RTN] <3:[DOWN]> [RTN] [SP] [F7] {wait} [F2] [F13]"**	The datapoint is disabled. the response window closes. The "Enable Disable Logical Unit Datapoints Individually" screen is displayed.	[X] Pass [ ] Fail	Stop Test
19.	Disable the AWOS Station ADAS Error Alert. @ASC: **"A [RTN] [Shft-K] 001 [RTN] <9:[DOWN]> [RTN] [SP] [F7] {wait} [F2] [F14]"**	The datapoint is disabled. the response window closes. The "Enable Disable Logical Unit Datapoints Individually" screen is displayed.	[X] Pass [ ] Fail	Stop Test

TEST # **OP-15** TESTED BY: _____ Jock K. Stratton _____ DATE: 04/SEP/97 TIME: 21:06 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
20.	Log off ADAS Specialist Interface. @ASC: **"<2:[F14]> [SP] [RTN]"**	The UNIX login prompt is displayed.	[X] Pass [ ] Fail	Stop Test
21.	Wait until ADAS makes a complete MPS update ('pong 4' dump at the IUC) then login to ADAS. @IUC: **"{wait for pong4 dump}"** @ASC: **"si [RTN] test12 [RTN]"**	@IUC: The IPS displays a pong4 dump. @ASC: The ADAS SI is displayed.	[X] Pass [ ] Fail	Stop Test
22.	Set the AM Resource Lower Alarm threshold field to 2999. @ASC: **"[F8] [F8] DD [RTN] O [RTN] <4:[DOWN]> [RTN] <2:[RIGHT]> [RIGHT] 2999 [F7] {wait} [F13]"**	The field must be updated with the new value. The response window closes. The "Edit Working Adaptation Data" screen is displayed.	[X] Pass [ ] Fail	Stop Test
23.	Change the value for Hardware Disk Space Lower Alarm threshold field to 149,000,000. @ASC: **"[RTN] H [RTN] [DOWN] [RTN] <2:[RIGHT]> [RIGHT] 149000000 [F7] {wait} [F13]"**	The field must be updated with the new value. The response window closes. The "Edit Working Adaptation Data" screen is displayed.	[X] Pass [ ] Fail	Stop Test
24.	Change the value for DLP REJECTED MESSAGES Upper Alert threshold field to 0. @ASC: **"[RTN] D [RTN] <3:[DOWN]> [RTN] 0 [RTN] [F7] {wait} [F13]"**	The field must be updated with the new value. The response window closes. The "Edit Working Adaptation Data" screen is displayed.	[X] Pass [ ] Fail	Stop Test
25.	Change the MPS REJECTED MESSAGES Upper Alert threshold field to 0. @ASC: **"[RETURN M [RTN] <3:[DOWN]> [RTN] 0 [RTN] [F7] {wait} [F13]"**	The field must be updated with the new value. The response window closes. The "Edit Working Adaptation Data" screen is displayed.	[X] Pass [ ] Fail	Stop Test
26.	Change the WARP REJECTED MESSAGES Upper Alert threshold field to 0. @ASC: **"[RTN] W [RTN] <3:[DOWN]> [RTN] 0 [RTN] [F7] {wait} [F13]"**	The field must be updated with the new value. The response window closes. The "Edit Working Adaptation Data" screen is displayed.	[X] Pass [ ] Fail	Stop Test
27.	Change the AWOS STATION datapoint ADAS ERROR Upper Alert threshold field to 0. @ASC: **"[RTN] A [RTN] [Shft-K] 001 [RTN] <9:[DOWN]> [RTN] 0 [RTN] [F7] {wait} [F14]"**	The field must be updated with the new value. The response window closes. The "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
28.	Install the Working Adaptation Parameters and record the time. @ASC: **"[F9] [SP] [RTN] {wait} [F2] {record time} [F14]"**	The response window is displayed, then the "Adaptation Parameter Commands" screen is displayed and the time is recorded.	Install Time 21:23:00 [X] Pass [ ] Fail	Stop Test
29.	For the next 60 seconds, dequeue all Events, press PrintScreen if EVENT TYPE 18. @ASC: **"[F6] [F8] {[F2] if EVENT TYPE 18} [F14]**	There should be No EVENT TYPE 18's after the time just recorded for: AM RESOURCES, DISK SPACE, DLP/WARP	[X] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	{repeat [F8]/[F14] sequence to dequeue all events for 60 seconds}"	REJECTED, MPS ERRONEOUS, or AWOS ERROR.		
30.	Log off ADAS Specialist Interface. @ASC: **"<3:[F14]> [SP] [RTN]"**	The UNIX login prompt is displayed.	[X] Pass [ ] Fail	Stop Test
31.	Wait until ADAS makes a complete MPS update {'pong 4' dump at the IUC} then login to ADAS. @IUC: **"{wait for pong4 dump}"** @ASC: **"si [RTN] test12 [RTN]"**	@IUC: The IPS displays a pong4 dump. @ASC: The ADAS SI is displayed.	[X] Pass [ ] Fail	Stop Test
32.	Enable the Operating System - File Error Alarm datapoint. @ASC: **"[F10] [F10] [RTN] O [RTN] <4:[DOWN]> [RTN] [RIGHT] [SP] [F7] {wait} [F2] [F13]"**	The datapoint is enabled. The response window closes. The "Enable / Disable Logical Unit Datapoints Individually" screen is displayed.	[X] Pass [ ] Fail	Stop Test
33.	Enable the DLP Communications Datapoint DLP Rejected Messages Alert. @ASC: **"D [RTN] <3:[DOWN]> [RTN] [SP] [F7] {wait} [F2] [F13]"**	The datapoint is enabled. the response window closes. The "Enable / Disable Logical Unit Datapoints Individually" screen is displayed.	[X] Pass [ ] Fail	Stop Test
34.	Enable the AWOS Station ADAS Error Alert and record the ASC time. @ASC: **"A [RTN] [Shft-K] 001 [RTN] <9:[DOWN]> [RTN] [SP] [F7] {wait} [F2] <2:[F14]>"**	The datapoint is enabled. the response window closes. The SI default screen is displayed. The ASC Time is recorded.	Enable DP Time 21:26:22 [X] Pass [ ] Fail	Stop Test
35.	Dequeue all Events for the next 60 seconds. @ASC: **"[F6] [F8] {[F2] if EVENT TYPE 18} [F14] {repeat [F8]/[F14] sequence to dequeue all events for 60 seconds}"**	There must be an EVENT TYPE 18, after the time recorded in the last step, for each datapoint: AM RESOURCES (alarm), DLP & AWOS error messages (alert).	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
36.	Log off ADAS Specialist Interface. @ASC: **"<2:[F14]> [SP] [RTN]"**	The UNIX login prompt is displayed.	[X] Pass [ ] Fail	Stop Test
37.	Wait until ADAS makes a complete MPS update {'pong 4' dump at the IUC} then login to ADAS. @IUC: **"{wait for pong4 dump}"** @ASC: **"si [RTN] test12 [RTN]"**	@IUC: The IPS displays a pong4 dump. @ASC: The ADAS SI is displayed.	[X] Pass [ ] Fail	Stop Test
38.	Reset all datapoints and record the time of reset. @ASC: **"[F10] [F8] <2:[DOWN]> [RTN] {wait} [F2] <2:[F14]> {record ASC time}"**	All datapoints are reset.	Reset All Time 21:30:03 [X] Pass [ ] Fail	Stop Test
39.	Reset Datapoints Individually, DLP Communications - DLP Rejected Messages Alert. @ASC: **"[F10] [F8] [RTN] D [RTN] <3:[DOWN]> [SP] [F7] {wait} [F2] [F13]"**	The datapoint is reset. The response window closes. The "Reset Datapoints Individually" screen is displayed.	Reset DLP Time 21:31:44 [X] Pass [ ] Fail	Stop Test

TEST # **OP-15** TESTED BY: _____ Jock K. Stratton _____ DATE: 04/SEP/97 TIME: 21:06 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
40.	Reset Datapoints Individually, WARP Communications - WARP Rejected Messages Alert. @ASC: **"W [RTN] <3:[DOWN]> [SP] [F7] {wait} [F2] <2:[F14]>"**	The datapoint is reset. The response window closes. The SI default screen is displayed.	Reset WARP Time 21:32:28 [X] Pass [ ] Fail	Stop Test
41.	Log off ADAS Specialist Interface. @ASC: **"[F14] [SP] [RTN]"**	The UNIX login prompt is displayed.	[X] Pass [ ] Fail	Stop Test
42.	Wait until ADAS makes a complete MPS update {'pong 4' dump at the IUC} then login to ADAS. @IUC: **"{wait for pong4 dump}"** @ASC: **"si [RTN] test12 [RTN]"**	@IUC: The IPS displays a pong4 dump. @ASC: The ADAS SI is displayed.	[X] Pass [ ] Fail	Stop Test
43.	Display the DLP Communications datapoints. @ASC: **"[F10] [F7] D [RTN] [F2]"**	Both the DLP Rejected Msg Past & Current Alert columns contain an asterisk and the Reset Date Time matches the Reset DLP ASC Time noted above.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
44.	Display the WARP Communications datapoints. @ASC: **"[F13] W [RTN] [F2]"**	Neither the WARP Rejected Msg Past nor Current Alert columns contain an asterisk and the Reset Date Time matches the Reset WARP ASC Time noted above.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
45.	Display the MPS Communications datapoints. @ASC: **"[F13] M [RTN] [F2]"**	Neither the MPS Rejected Msg Past nor Current Alert columns contain an asterisk and the Reset Date Time matches the Reset All ASC Time noted above.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
46.	Display the AWOS Station datapoints. @ASC: **"[F13] A [RTN] [Shft-K] 001 [RTN] <9:[DOWN]> [F2]"**	Both the ADAS Error Msg Past & Current Alert columns contain an asterisk and the Reset Date Time matches the Reset DLP ASC Time noted above.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
47.	Acknowledge ISI event to terminate test. @ISC: **"[F14] [F6] [F7] [F7] {wait} [F7] [F14] [14]"**	The Event window opens and closes. The IPS Test Terminates.	[X] Pass [ ] Fail	Stop Test
48.	When the IPS test terminates, shutdown ADAS. @ASC: **"<2:[F14]> [F7] [F8] [SP] [RTN]"**	The ADAS shuts down.	[X] Pass [ ] Fail	Stop Test
49.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F14] [F7] [F8] [F7] OP-15 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The Select Log Type screen is displayed.	[X] Pass [ ] Fail	Stop Test
50.	@Patch Panel: Move patch cord from ADAS SEP port to the IPS LOG port.	The PC will now capture IPS output.	[X] Pass [ ] Fail	Re-connect Patch Cable
51.	Issue the command to shutdown the IPS.	The ISI shuts-down and the ISC displays	[X] Pass [ ] Fail	Stop Test

TEST # **OP-15** TESTED BY: _____ Jock K. Stratton _____ DATE: 04/SEP/97 TIME: 21:06 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: **"[F8] [F10] [SP] [RTN]"**	a 'login' prompt.		
52.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass **[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.14. TEST OP-16 - Checkpoint and Shutdown Processing

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.14.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-16.)
b.	[XX]	[ ]	The ADAS Event Log Report, for Event Type 15 entries, will indicate the failed mission cycle(s). A normal mission cycle will generate an event type 15 entry ("One of the one minute cycle phases has begun"), in the Event Log, for each of the following six phases: mission CR1-1, completion slp CR1-2, completion archival CR1-3, completion maintenance CR1-4, completion chkpt CR1-5, and idle CR1-6. The terminated mission phase CR2 will be followed by a 2nd mission phase CR3, with no intervening mission cycle phases. Record the 'EVENT SEQ. NUMBER' and 'DATE/TIME STAMP' from the the two consecutive mission phase event log entries. CR2A, CR2B, CR3A, & CR3B Incomplete Mission Cycle: EVENT SEQ. NUMBER 296 DATE/TIME STAMP: 09-04-97 23:02:00 Next Mission Cycle Event: EVENT SEQ. NUMBER 485 DATE/TIME STAMP: 09-04-97 23:04:00
c.	[XX]	[ ]	The METAR reports sent to the WMSCR simulator must show data only from completed cycles. Inspect each of the hourly METAR messages following the terminated mission phase and verify that the Rain begin/end data does not appear for minute 01 (RB01 or RE01). CR4-1, CR4-2, CR4-3, CR4-4, & CR4-5

The following data, marked with evaluation criteria cross-reference numbers, is a subset of the OT&E formal test run data. Other relavent data has been

included into OP-16's Test Conduct Form (TCF) file, "OP-16.TCF".

```
adas 18179 18175  0 21:51:23 ?        0:00 /usr/adas/adasrun/bin/mcc_ctl
      Press return to kill "mcc_ctl"  # Sep 4 @ 21:52:51
    SIGKILL sent to process "mcc_ctl" # Sep 4 @ 23:02:13

    adas 18408 18406  0 23:02:44 ?        0:00 /usr/adas/adasrun/bin/sl_ctl
      Press return to kill "sl_ctl"  # Sep 4 @ 23:04:07
    SIGKILL sent to process "sl_ctl" # Sep 5 @ 00:02:48

    adas 18599 18592  0 00:03:21 ?        0:00 /usr/adas/adasrun/bin/wsp_ctl
      Press return to kill "wsp_ctl"  # Sep 5 @ 00:04:45
    SIGKILL sent to process "wsp_ctl" # Sep 5 @ 01:02:38
```

EVENT PRIORITY: normal   DATE/TIME STAMP: 09-04-97 21:53:00
EVENT SEQ. NUMBER: 72   EVENT TYPE: 15   CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission   CR1-1

EVENT PRIORITY: normal   DATE/TIME STAMP: 09-04-97 21:53:18
EVENT SEQ. NUMBER: 73   EVENT TYPE: 15   CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp   CR1-2

EVENT PRIORITY: normal   DATE/TIME STAMP: 09-04-97 21:53:18
EVENT SEQ. NUMBER: 74   EVENT TYPE: 15   CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion archival   CR1-3

EVENT PRIORITY: normal   DATE/TIME STAMP: 09-04-97 21:53:18
EVENT SEQ. NUMBER: 91   EVENT TYPE: 15   CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion maintenance   CR1-4

EVENT PRIORITY: normal   DATE/TIME STAMP: 09-04-97 21:53:21
EVENT SEQ. NUMBER: 250   EVENT TYPE: 15   CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion chkpt   CR1-5

EVENT PRIORITY: normal   DATE/TIME STAMP: 09-04-97 21:53:28
EVENT SEQ. NUMBER: 251   EVENT TYPE: 15   CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: idle time   CR1-6

EVENT PRIORITY: normal   DATE/TIME STAMP: 09-04-97 23:02:00   CR2B
EVENT SEQ. NUMBER: 296   EVENT TYPE: 15   CSC ID: 12.01   CR2A
One of the one minute cycle phases has begun.

phase: mission   CR2

EVENT PRIORITY: normal   DATE/TIME STAMP: 09-04-97 23:04:00   CR3B

EVENT SEQ. NUMBER: 485 EVENT TYPE: 15 CSC ID: 12.01 CR3A

One of the one minute cycle phases has begun.

phase: mission CR3

```
91 3 METAR K001 050000Z AUTO 04005G15KT 7SM R01/3000FT -DZ 22/06 A2998     CR4-1
92 3     RMK A02 DZB04B59 SLP000 PWINO                                     CR4-1

117 4 METAR K002 050000Z AUTO 04005G15KT 7SM R01/3000FT -RA 22/06 A2998    CR4-2
118 4     RMK A02 RAB04B59 SLP000 PWINO FZRANO                             CR4-2

85 3 METAR K003 050000Z AUTO 04005G15KT 7SM R01/3000FT -DZ 22/06 A2998     CR4-3
86 3     RMK A02 DZB04B59 SLP000 PWINO                                     CR4-3

88 3 METAR K004 050000Z AUTO 04005G15KT 7SM R01/3000FT -DZ 22/06 A2998     CR4-4
89 3     RMK A02 DZB04B59 SLP000 PWINO                                     CR4-4

82 3 METAR K005 050000Z AUTO 04005G15KT 7SM R01/3000FT -DZ 22/06 A2998     CR4-5
83 3     RMK A02 DZB04B59 SLP000 PWINO                                     CR4-5
```

C.7.14.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-16.TCF".

TEST # **OP-16** TESTED BY: _____ Jock K. Stratton _____ DATE: 04/SEP/97 TIME: 21:49 TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Patch Panel: Verify that a patch cable connects the ADAS NADIN II port to the IPS NADIN II port.	The patch cable connects the ADAS's & IPS's NADIN II ports.	[X] Pass [ ] Fail	Stop Test
2.	@Patch Panel: Verify that a patch cable connects the ADAS SEP port to a PSF PC port.	A patch cable connects the SEP port to a PC port.	[X] Pass [ ] Fail	Connect Patch Cable
3.	@PC DOS prompt: enter '**cap_itd OP-16**'	Procomm starts with the log file open.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter **"cl 51"**	AUC Displays: Config 51 loaded.	[X] Pass [ ] Fail	Stop Test
6.	**"isi"** @ISC 'login': **test12**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
7.	Start test "OP-16" w/ RETRY set to **"YES"**. @ISC: **"[F8] [F7] OP-16 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter **"sa clean"**	All datastores are removed then ADAS starts.	[X] Pass [ ] Fail	Stop Test
9.	After ADAS reaches the operational state, enter the 'kill_csc' command for 'mcc_ctl'. @AUC 'adas' prompt: **"kill_csc mcc_ctl"**	The AUC displays "PRESS RETURN TO KILL PROCESS".	[X] Pass [ ] Fail	Stop Test
10.	When prompted, press return and acknowledge event. @ISC: **"<2:[F14]> [F6] {wait} [F7]"** @AUC: Press **"[RTN]"** @ISC: Acknowledge ISI event. **"[F7]"**	The child death of csc 1201 message appears on the AUC, followed by an ADAS auto-restart. The Event Window closes.	[X] Pass [ ] Fail	Stop Test
11.	After ADAS reaches the operational state, enter the 'kill_csc' command for 'sl_ctl'. @AUC 'adas' prompt: **"kill_csc sl_ctl"**	The AUC displays "PRESS RETURN TO KILL PROCESS".	[X] Pass [ ] Fail	Stop Test
12.	When prompted, press return and acknowledge event. @ISC: Display event. **"[F7]"** @AUC: Press **"[RTN]"**	The child death of csc 1101 message appears on the AUC, followed by an ADAS auto-restart. The Event Window closes.	[X] Pass [ ] Fail	Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ISC: Acknowledge ISI event. **"[F7]"**			
13.	After ADAS reaches the operational state, enter the 'kill_csc' command for 'wsp_ctl'. @AUC 'adas' prompt: **"kill_csc wsp_ctl"**	The AUC displays "PRESS RETURN TO KILL PROCESS".	[X] Pass [ ] Fail	Stop Test
14.	When prompted, press return and acknowledge event. @ISC: Display event. **"[F7]"** @AUC: Press **"[RTN]"** @ISC: Acknowledge ISI event. **"[F7]"**	The child death of csc 901 message appears on the AUC, followed by an ADAS auto-restart. The Event Window closes.	[X] Pass [ ] Fail	Stop Test
15.	When prompted by an IPS event, login to ADAS, report event log event type 15 entries, then acknowledge the IPS prompt. @ISI: **"{wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F11] <7:[RTN]> 15 [RTN] {wait} <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the report output. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
16.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC: **"stop_adas [RTN]"**	The ISI displays it's default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test
17.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] [F8] [F7] OP-16 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
18.	Reset the IPS test time offset. @ISC: **"[F8] [F11] [SP] [RTN]"**	The IPS test time offset is reset to 0.	[X] Pass [ ] Fail	Stop Test
19.	@Patch Panel: Move patch cord from ADAS SEP port to the IPS LOG port.	The PC will now capture IPS output.	[X] Pass [ ] Fail	Re-connect Patch Cable
20.	Issue the command to Shutdown IPS. @ISC: **"[F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test

21.	After the data is captured, close procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	Procomm closes.	**[X]** Pass	**[ ]** Fail	Stop Test
22.	@IUC 'aldars' prompt: enter **"setdate"**.	The IPS outputs 10 digit date/time in the format MMDDhhmmYY format.	**[X]** Pass	**[ ]** Fail	Stop Test
23.	@AUC 'adas' prompt: enter **"setdate [SP] {the 10 digits output by IPS @IUC}"**.	The ADAS system date/time is reset to the current date/time.	**[X]** Pass	**[ ]** Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.15. TEST OP-17 - ASC Display Response

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.15.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-17.)
b.	[XX]	[ ]	Calculate the average of all 30 recorded times. {SUM/30=AVG} __24.78__ / 30 = _.826_
c.	[XX]	[ ]	Calculate the average of the 29 lowest recorded times. {(SUM-MAX)/29=AVG} _22.71_ / 29 = _.783_
d.	[XX]	[ ]	The times noted for each display response should be totaled.
e.	[XX]	[ ]	The average of all response times must be less than 3 seconds.
f.	[XX]	[ ]	95% of the responses (the 29 shortest) must be less than 1 second.

Because of the short timing intervals and the variance of reaction times from individual to individual, the calculated average will obviously not be exact. While a +/- tolerance was ideal, the determination of a realistic factor for human reaction times was not within the scope of this document. However reaction times may be on the order of .25 seconds per sample.

Relavent data has been included into OP-17's Test Conduct Form (TCF) file, "OP-17.TCF".

C.7.15.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-17.TCF".

TEST # **OP-17** TESTED BY: _Jock Stratton & Hugh Vuong_ DATE: _20/AUG/97_ TIME: _18:50_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	**[X]** Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	**[X]** Pass [ ] Fail	Redo Step
3.	@IUC 'aldars': enter **"si"**	IUC Displays: Specialist can login	**[X]** Pass [ ] Fail	Stop Test
4.	@AUC 'adas' prompt: enter **"cl 55"**	AUC Displays: Config 55 loaded.	**[X]** Pass [ ] Fail	Stop Test
5.	@ISC 'login': **'isi [RTN] test12 [RTN]'**	IPS SI (ISI) starts	**[X]** Pass [ ] Fail	Stop Test
6.	Start IPS test "OP-17" w/ RETRY set to YES. @ISC: **"[F8] [F7] OP-17 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc (15000)	**[X]** Pass [ ] Fail	Stop Test
7.	@AUC 'adas' prompt: enter **'sa clean'**	ADAS starts to the Operational State.	**[X]** Pass [ ] Fail	Stop Test
8.	When IPS Event is indicated, login then ack prompt. @ISC: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC 'login': enter **'si [RTN] test12 [RTN]'** @ISC: Acknowledge ISI Event. **"[F7]"**	The Event Window opens. The SI Default screen is displayed. The Event Window closes.	**[X]** Pass [ ] Fail	Stop Test
9. **BEGIN LOOP**	Time how long it takes to display 1 screen of Event Log Data. Record the number of seconds from the time the request is issued until a response begins to be received/ displayed by the SI. @ASC: **"[F13] [F8] [RTN] {current date - 1} <7:[RTN]>"**	The "Display Event Log Data" screen is displayed. {Record time once per pass} 1. _______ seconds 7. _______ seconds 13. _______ seconds 19. _______ seconds 25. _______ seconds	{Record once/pass} **[X]** Pass [ ] Fail **[X]** Pass [ ] Fail **[X]** Pass [ ] Fail **[X]** Pass [ ] Fail **[X]** Pass [ ] Fail	Stop Test
10.	Time how long it takes to display Miscellaneous System Characteristics. Record the number of seconds from the time the request is issued until a response begins to be received/ displayed by the SI. @ASC: **"<2:[F14]> [F8] [F7] MMM [RTN]"**	The "Display Miscellaneous System Characteristics" screen is displayed. {Record time once per pass} 2. _______ seconds 8. _______ seconds 14. _______ seconds 20. _______ seconds 26. _______ seconds	{Record once/pass} **[X]** Pass [ ] Fail **[X]** Pass [ ] Fail **[X]** Pass [ ] Fail **[X]** Pass [ ] Fail	Stop Test

TEST # **OP-17** TESTED BY: _Jock Stratton & Hugh Vuong_ DATE: _20/AUG/97_ TIME: _18:50_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
			[X] Pass [ ] Fail	
11.	Time how long it takes to display one screen of METAR Archive Data. Record the number of seconds from the time the request is issued until a response begins to be received/ displayed by the SI. @ASC: **"<2:[F14]> [F11] [F8] {current date - 1} <8:[RTN]>"**	The "Display METAR Archival Data" screen is displayed. {Record time once per pass} 3. _______ seconds 9. _______ seconds 15. _______ seconds 21. _______ seconds 27. _______ seconds	{Record once/pass} [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
12.	Time how long it takes to display AWOS Channel Characteristics. Record the number of seconds from the time the request is issued until a response begins to be received/ displayed by the SI. @ASC: **"<2:[F14]> [F8] [F7] [RTN]"**	The "Display AWOS Channel Characteristics" screen is displayed. {Record time once per pass} 4. _______ seconds 10. _______ seconds 16. _______ seconds 22. _______ seconds 28. _______ seconds	{Record once/pass} [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
13.	Time how long it takes to display one screen of Error Log Data. Record the number of seconds from the time the request is issued until a response begins to be received/ displayed by the SI. @ASC: **"<2:[F14]> [F13] [F8] [DOWN] [RTN] {current date - 1} <7:[RTN]>"**	The "Display Error Log Data" screen is displayed. {Record time once per pass} 5. _______ seconds 11. _______ seconds 17. _______ seconds 23. _______ seconds 29. _______ seconds	{Record once/pass} [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
14.	Time how long it takes to display Datapoint Availability Status. Record the number of seconds from the time the request is issued until a response begins to be received/ displayed by the SI. @ASC: **"<2:[F14]> [F10] [F7] [RTN]"**	The "Display ADAS Logical Unit Availability Status" screen is displayed. {Record time once per pass} 6. _______ seconds 12. _______ seconds 18. _______ seconds 24. _______ seconds 30. _______ seconds	{Record once/pass} [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
15. **LOOP END**	Return to SI default screen. @ASC: **"<2:[F14]>"**	The SI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
16.	Repeat steps in the above LOOP four more times (total of 5) before preceding to the next step.	Pass 1 completed: Pass 2 completed: Pass 3 completed: Pass 4 completed:	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test

TEST # **OP-17** TESTED BY: _Jock Stratton & Hugh Vuong_ DATE: _20/AUG/97_ TIME: _18:50_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
		Pass 5 completed:	[X] Pass [ ] Fail [X] Pass [ ] Fail	
17.	Acknowledge the OK to terminate event. @ISC: "**[F7] [F7] [F14]**"	The IPS test terminates and the ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
18.	Issue the command to Shutdown ADAS. @ASC: "**[F7] [F8] [SP] [RTN]**"	The ASC displays a 'login' prompt, the AUC indicates the ADAS is DOWN".	[X] Pass [ ] Fail	Stop Test
19.	Issue the command to Shutdown IPS. @ISC: "**[F8] [F10] [SP] [RTN]**"	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.7.16. TEST OP-18 - ASC Intrusive Update response

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.7.16.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test OP-18.)
b.	[XX]	[ ]	Total the 30 recorded times. Total Response Time: ________
c.	[XX]	[ ]	Identify the longest response time and subtract it from the total. 95% Time: _______
d.	[XX]	[ ]	Divide the Total Response Time by 30. Avg Time: ________
e.	[XX]	[ ]	Divide the 95% Time by 29. 95% Avg: _______
f.	[XX]	[ ]	The average of all response times (Avg Time) must be less than 30 seconds.
g.	[XX]	[ ]	95% of the responses (95% Avg) must be less than one minute.

Relevant OT&E formal test run data has been included into OP-18's Test Conduct Form (TCF) file, "OP-18.TCF".

C.7.16.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "OP-18.TCF".

NOTE: With the ADAS/ALDARS software build, the Test Operator can arbitrarily cause the success or failure of this test. If the "INSTALL ADB" is entered between 20 &to40 seconds into mission cycle, the response time will be less than 1 second. If the "INSTALL ADB" is entered between 45 to 50 seconds into mission cycle, the response time will be greater than 30 seconds. Operational test re-design during the OT&E Formal Test Run measured the response time at each of the mission cycle's (12) 5-second marks. Future regression testing will, to insure a statistically significant sample, measure the response time 3 times at each 5-second mark.

TEST # **OP-18** TESTED BY: Hugh Vuong & Jock K Stratton DATE: _10/SEP/97_ TIME: _19:14_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@AUC 'adas' prompt: enter **"cl 55"**	AUC Displays: Config 55 loaded.	[X] Pass [ ] Fail	Stop Test
4.	@ISC 'login': enter **'isi test12'**	IPS SI (ISI) starts	[X] Pass [ ] Fail	Stop Test
5.	Start IPS test "OP-18" w/ RETRY set to "YES". @ISC: **"[F8] [F7] OP-18 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
6.	@AUC 'adas': **sa**	AUC Displays: Starting ADAS...	[X] Pass [ ] Fail	Stop Test
7.	When prompted by IPS, login to the ADAS SI. @ISC: "{wait} [F14] **[F6] [F7]"** @ASC 'login': enter **'isi test12'**	@IUC: SUCCESSFULLY malloc (15000) The Event Window opens. The SI Default screen is displayed.	[X] Pass [ ] Fail	Stop Test
8. **LOOP BEGIN**	Set the Time Management Datapoint threshold Special METAR Throughput Failures field to 10. @ASC: **"[F8] [F8] DD [RTN] T [RTN] <4:[DOWN]> [RTN] 10 [F7] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
9.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	A success response window is displayed. {Record response time once per pass} 1. ________ 12. ________ 23. ________ The "Adaptation Commands" screen is displayed.	 [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test

TEST # **OP-18** TESTED BY: Hugh Vuong & Jock K Stratton DATE: _10/SEP/97_ TIME: _19:14_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
10.	Set the Time Management Datapoint Threshold METAR Throughput Failures field to 10. @ASC: **"[F8] DD [RTN] T [RTN] <3:[DOWN]> [RTN] 10 [F7] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
11.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	A success response window is displayed. {Record response time once per pass} 2. ________ 13. ________ 24. ________ The "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
12.	Set the Operating System Datapoint Threshold Access Monitor Resources field to 10. @ASC: **"[F8] DD [RTN] O [RTN] <4:[DOWN]> [RTN] 10 [F7] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
13.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	A success response window is displayed. {Record response time once per pass} 3. ________ 14. ________ 25. ________ The "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
14.	Set the Time Management Datapoint Threshold DLP Throughput field to 10. @ASC: **"[F8] DD [RTN] T [RTN] [DOWN] [RTN] 10 [F7] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
15.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	A success response window is displayed. {Record response time once per pass} 4. ________ 15. ________ 26. ________ The "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
16.	Set the Time Management Datapoint Threshold WARP Throughput Failures field to 10. @ASC: **"[F8] DD [RTN] T [RTN] <2:[DOWN]> [RTN] 10 [F7] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
17.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed.	A success response window is displayed. {Record response time once per pass} 5. ________ 16. ________ 27. ________	[X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test

TEST # **OP-18** TESTED BY: Hugh Vuong & Jock K Stratton DATE: _10/SEP/97_ TIME: _19:14_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	@ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	The "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	
18.	Set the AWOS Station K001 Datapoint Threshold Error Messages field to 10. @ASC: **"[F8] DD [RTN] A [RTN] [Shft-K] 001 [RTN] <9:[DOWN]> [RTN] 10 [F7] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
19.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	A success response window is displayed. {Record response time once per pass} 6. ________ 17. ________ 28. ________ The "Adaptation Commands" screen is displayed.	 [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
20.	Set the Miscellaneous System Characteristics Max Specialist field to 1. @ASC: **"[F8] MMM [RTN] <12:[DOWN]> 1 [RTN] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
21.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	A success response window is displayed. {Record response time once per pass} 7. ________ 18. ________ 29. ________ The "Adaptation Commands" screen is displayed.	 [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
22.	Toggle the value of the Miscellaneous System Characteristics Simulated Command field. @ASC: **"[F8] MMM [RTN] <10:[DOWN]> [SP] <2:[DOWN]> [RTN] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
23.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	A success response window is displayed. {Record response time once per pass} 8. ________ 19. ________ 30. ________ The "Adaptation Commands" screen is displayed.	 [X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
24.	Set the Miscellaneous System Characteristics Critical Restarts field to 5. @ASC: **"[F8] MMM [RTN] <8:[DOWN]> 5 <4:[DOWN]> [RTN] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
25.	Time the installation of the working adaptation	A success response window is displayed.		Stop Test

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
	data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	{Record response time once per pass} 9. ________ 20. ________ The "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail [X] Pass [ ] Fail	
26.	Set the Miscellaneous System Characteristics Non-Critical Restarts field to 7. @ASC: **"[F8] MMM [RTN] <9:[DOWN]> 7 <3:[DOWN]> [RTN] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
27.	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} [F14]"**	A success response window is displayed. {Record response time once per pass} 10. ________ 21. ________ The "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
28.	Set the Miscellaneous System Characteristics Specialist Logon Timer field to 555. @ASC: **"[F8] MMM [RTN] <4:[DOWN]> 555 <8:[DOWN]> [RTN] {wait} [F14]"**	A response window indicating success, the "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail	Stop Test
29. **LOOP END**	Time the installation of the working adaptation data. Record the number of seconds from confirmation of the installation request to when the response window begins to be displayed. @ASC: **"[F9] [SP] [RTN] {wait & record} <2:[F14]>"**	A success response window is displayed. {Record response time once per pass} 11. ________ 22. ________ The "Adaptation Commands" screen is displayed.	[X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
30.	Repeat the steps from LOOP BEGIN to LOOP END, twice.	Completed pass 1: Completed pass 2: Completed pass 3:	[X] Pass [ ] Fail [X] Pass [ ] Fail [X] Pass [ ] Fail	Stop Test
31.	Acknowledge the OK to terminate event. @ISC: **"[F7] [F14]"**	The IPS test terminates and the ISI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
32.	Issue the command to Shutdown ADAS. @ASC: **"[F14] [F7] [F8] [SP] [RTN]"**	The ASC displays a 'login' prompt, the AUC indicates the ADAS is DOWN".	[X] Pass [ ] Fail	Stop Test
33.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	[X] Pass [ ] Fail	Stop Test

- - - - **END OF TEST PROCEDURE** - - - - **END OF TEST PROCEDURE** - - - - **END OF TEST PROCEDURE** - - - - **END OF TEST PROCEDURE** - - - -

C.8. CATEGORY PT - ADAS Mods PTRs & Site Issues

A category PT test was created for of the 9 ADAS/Mods OT&E PTR and 6 ADAS Site Issue (SI) specified in the ADAS/ALDARS Contract Statement of Work (SOW). Instead of test procedure steps, the PT tests tracked the evaluation of ADAS with respect to the SOW PTRs and SIs. For complete data and information, refer to paragraph 4.4.8 in this report.

C.9. CATEGORY RA - Reliability and Availability Tests

C.9.1 TEST RA-01 - Reliability and Availability

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.9.1.1 Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[X]	[ ]	Each test procedure step's "pass" box, in the 'Observed Results column, is marked, indicating the 'Expected Response' was observed and/or the correct action was performed successfully. (See Appendix C for the test procedures performed for this test).
b.	[x]	[ ]	The Mean Time Between Failure shall equal to or greater than 2190 hours.NAS-SS-1000,Section 3.2.2, Vol. I Table 3.2.2.1-1
c.	[X]	[ ]	The availability shall equal to or greater than 0.99973 percent.NAS-SS-1000, Section 3.2.4, Vol.I Table 3.2.2.1-1

All relevant OT&E formal test run data has been included into test RA-01's Test Conduct Form (TCF) file, "RA-01.TCF".

C.9.1.2 TCF Test Procedure Steps

The Following test procedure steps, referenced by evaluation criteria "a" of this test's Data Reduction and Analysis Method paragraph in the main body of this report, were extracted from test procedure file "RA-01.TCF".

STEP	DESCRIPTION	VER.	DATE	TIME
1	Record the version number of ADAS Operational Software.	4.19	12/8/97	08:00 AM
2	Record the version number of NLDN Operational Software.	9.41	12/8/97	08:00 AM
3	Record the time and date for beginning of test.	4.19	12/8/97	08:00 AM
4	Record the time and date for stopping of test.	4.19	3/13/98	08:00 AM
5	Record the time and date for beginning of downtime.	4.19	-------	-------
6	Record the time and date for stopping of downtime.	4.19	-------	-------

MTBF = total number of measured hours/# of failures
MTTR = total # amount of downtime/# of failures
Availability = MTBF/(MTBF+MTTR)

The total of test time = 95 days = 2280 hours
The total of down time = 0 hour
MTTR = 0 hour
Reliability = MTBF = 2280 hours > 2190 hours
Availability = MTBF/(MTBF+MTTR) = 2280/(2280 + 0) = 1 > 0.99973

C.10. CATEGORY ST - Stress Tests

C.10.1. TEST ST-01 - All Stations Nominal

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.10.1.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

Pass Fail

a. [XX] [ ] Each procedure step's "pass" box, in the 'Observed Results' column, was marked. (See Appendix C for the test procedure performed for test ST-01.)

b. [XX] [ ] The DISPLAY EVENT/ERROR LOG PARAMETERS screen print must indicate zero records in the error log CR9, and the EVENT LOG DATA REQUEST FOR PRINTER OUTPUT for Event type 17 CR10, and its RESPONSE CR11 screen prints must indicate there are no Event Type 17's entries.

c. [XX] [ ] The length of the processing phase (the mission phase of the mission cycle) must not exceed 26.7 (27 due to the one second resolution of the system timing).This was calculated from the ADAS Events indicating the beginning of the mission phase timestamp CR1 subtracted from the beginning of the completion slp phase timestamp CR2, for mission cycle of the test..

d. [XX] [ ] The DLP CR3 and ITWS6 CR4 DR summary files must indicate that 75 messages are received each mission cycle. The number of messages DLP (CR3 = CR4 = 75 * (#_of_mission_cycles)).

e. [XX] [ ] Unless the hourly minute was crossed, the WMSCR Metar log CR5 will indicate that no messages were received during this test. If the hourly minute was crossed,the WMSCR Metar log will indicate that the 25 AWOS sites' ADAS-generated hourly Metar reports were received.

f. [XX] [ ] The MPS simulator log must show that no METAR 5 second alarms (LU #24, DP# 05 = 0 CR7) or 10 second alarms (LU#24, DP#04 = 0 CR8) were generated, i.e`. the MPS ALARM Log does not contain alarm entries for 5 or 10 second throughput alarms.

The following data marked with evaluation criteria cross-reference numbers is a subset of the relevant OT&E formal test run data that has been included into ST-01's Test Conduct Form (TCF) file, "ST-01.TCF".

02-13-98 02:27:11 . Events: 1 . Responses: 0 . EVENT/ERROR CMDS

DISPLAY EVENT/ERROR LOG PARAMETERS

ERROR LOG FILE PATHNAME: /usr/adas/adasrun/data/SL/erl
EVENT LOG FILE PATHNAME: /usr/adas/adasrun/data/SL/evl
ERROR LOG RLLOVER FILE PATHNAME: /usr/adas/adasrun/data/SL/erl.ro
EVENT LOG ROLLOVER FIL PATHNAME: /usr/adas/adasrun/data/SL/evl.ro

FILE NAME:	BYTE SIZE:	RECORD COUNT:	DATE/TIME LAST UPDATE:
erl	0	0	Fri Feb 13 02:10:56 1998
evl	89816	1956	Fri Feb 13 02:27:07 1998
erl.ro	0	0	Thu Jan 1 00:00:00 1970
evl.ro	0	0	Thu Jan 1 00:00:00 1970

EXIT

... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... F14 .

. 02-13-98 02:27:24 . Events: 2 . Responses: 0 . EVENT/ERROR CMDS

EVENT LOG DATA REQUEST FOR PRINTER OUTPUT

PRIMARY SEARCH KEY DATA:

START DATE: 02/13/98 STOP DATE: 02/13/98

START TIME: 00:00:00 STOP TIME: 02:27:17

SECONDARY SEARCH KEY DATA:

BEGIN EVENT SEQUENCE NUMBER: 0

END EVENT SEQUENCE NUMBER: 0

EVENT TYPE: 17

ENTER INTEGER VALUE FOR THE EVENT TYPE NUMBER.

EXIT

... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... F14 .

. 02-13-98 02:27:24 . Events: 2 . Responses: 0 . EVENT/ERROR CMDS

RESPONSE CONTROL MESSAGE STATUS

COMMAND NAME: [REPORT EVNT/ERR LOG]

RESPONSE STATUS: FAILURE

REMARKS: THERE IS NO EVENT/ERROR LOG DATA MATCHING THE SEARCH KEYS.

CR11

PRESS EXIT KEY TO QUIT WINDOW.

EXIT

... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... F14 .

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:18:02

EVENT SEQ. NUMBER: 74 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:18:09
EVENT SEQ. NUMBER: 76 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:19:00
EVENT SEQ. NUMBER: 1868 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:19:08
EVENT SEQ. NUMBER: 1870 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:20:00
EVENT SEQ. NUMBER: 1881 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:20:08
EVENT SEQ. NUMBER: 1883 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:21:00
EVENT SEQ. NUMBER: 1891 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:21:08
EVENT SEQ. NUMBER: 1892 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:22:00
EVENT SEQ. NUMBER: 1899 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:22:07
EVENT SEQ. NUMBER: 1900 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:23:01
EVENT SEQ. NUMBER: 1908 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:23:07
EVENT SEQ. NUMBER: 1909 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:24:00
EVENT SEQ. NUMBER: 1917 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:24:08
EVENT SEQ. NUMBER: 1918 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:25:00
EVENT SEQ. NUMBER: 1927 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:25:08
EVENT SEQ. NUMBER: 1929 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:26:00
EVENT SEQ. NUMBER: 1940 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:26:07
EVENT SEQ. NUMBER: 1943 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:27:00
EVENT SEQ. NUMBER: 1954 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 02:27:08
EVENT SEQ. NUMBER: 1957 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

```
#####FILE: /usr/ips/aldars/tst/ST-01/ST-01C.sumME  # Feb 13 @ 02:59:51
-rw-rw-r--   1 aldars   adasteam     156 Feb 13 02:38 ST-01C.sumME
#####START of file framing line #####
DR of ST-01C.METAR for # of Metar reports per site

Total Site Reports Processed  = 0
Total number of sites         = 0

 Site_ID  #_of_msgs (6 per line)

#####END of file framing line #####

#####FILE: /usr/ips/aldars/tst/ST-01/ST-01C.sumDL  # Feb 13 @ 02:59:52
-rw-rw-r--   1 aldars   adasteam    9525 Feb 13 02:49 ST-01C.sumDL
#####START of file framing line #####
DR of ST-01C.DLPAW for messages/site count.

ADU#:  1 | (IPS): 02/13/98 02:18:12 - (ADAS): 02/13/98 02:18:12 | msgs 55
ADU#:  2 | (IPS): 02/13/98 02:18:18 - (ADAS): 02/13/98 02:18:18 | msgs 20
ADU#:  3 | (IPS): 02/13/98 02:19:12 - (ADAS): 02/13/98 02:19:12 | msgs 55
ADU#:  4 | (IPS): 02/13/98 02:19:17 - (ADAS): 02/13/98 02:19:17 | msgs 20
ADU#:  5 | (IPS): 02/13/98 02:20:05 - (ADAS): 02/13/98 02:20:05 | msgs 55
ADU#:  6 | (IPS): 02/13/98 02:20:18 - (ADAS): 02/13/98 02:20:18 | msgs 20
ADU#:  7 | (IPS): 02/13/98 02:21:06 - (ADAS): 02/13/98 02:21:06 | msgs 55
ADU#:  8 | (IPS): 02/13/98 02:21:18 - (ADAS): 02/13/98 02:21:18 | msgs 20
ADU#:  9 | (IPS): 02/13/98 02:22:13 - (ADAS): 02/13/98 02:22:13 | msgs 55
ADU#: 10 | (IPS): 02/13/98 02:22:19 - (ADAS): 02/13/98 02:22:19 | msgs 20
ADU#: 11 | (IPS): 02/13/98 02:23:14 - (ADAS): 02/13/98 02:23:14 | msgs 55
ADU#: 12 | (IPS): 02/13/98 02:23:18 - (ADAS): 02/13/98 02:23:18 | msgs 20
ADU#: 13 | (IPS): 02/13/98 02:24:07 - (ADAS): 02/13/98 02:24:07 | msgs 55
ADU#: 14 | (IPS): 02/13/98 02:24:19 - (ADAS): 02/13/98 02:24:19 | msgs 20
ADU#: 15 | (IPS): 02/13/98 02:25:16 - (ADAS): 02/13/98 02:25:16 | msgs 55
ADU#: 16 | (IPS): 02/13/98 02:25:24 - (ADAS): 02/13/98 02:25:24 | msgs 20
ADU#: 17 | (IPS): 02/13/98 02:26:15 - (ADAS): 02/13/98 02:26:15 | msgs 55
ADU#: 18 | (IPS): 02/13/98 02:26:28 - (ADAS): 02/13/98 02:26:28 | msgs 20
ADU#: 19 | (IPS): 02/13/98 02:27:18 - (ADAS): 02/13/98 02:27:18 | msgs 55
ADU#: 20 | (IPS): 02/13/98 02:27:28 - (ADAS): 02/13/98 02:27:28 | msgs 20
ADU#: 21 | (IPS): 02/13/98 02:28:15 - (ADAS): 02/13/98 02:28:15 | msgs 55
ADU#: 22 | (IPS): 02/13/98 02:28:29 - (ADAS): 02/13/98 02:28:29 | msgs 20
ADU#: 23 | (IPS): 02/13/98 02:29:13 - (ADAS): 02/13/98 02:29:13 | msgs 55
ADU#: 24 | (IPS): 02/13/98 02:29:24 - (ADAS): 02/13/98 02:29:24 | msgs 20

Total Site Reports Processed  = 900
Total number of sites         = 75

 Site_ID  #_of_msgs (6 per line)

K002 - 12   K003 - 12   K004 - 12   K005 - 12   K006 - 12   K007 - 12
K008 - 12   K009 - 12   K01 - 12    K010 - 12   K011 - 12   K012 - 12
K013 - 12   K014 - 12   K015 - 12   K016 - 12   K017 - 12   K018 - 12
K019 - 12   K020 - 12   K021 - 12   K022 - 12   K023 - 12   K024 - 12
K025 - 12   K026 - 12   K027 - 12   K028 - 12   K029 - 12   K030 - 12
K031 - 12   K032 - 12   K033 - 12   K034 - 12   K035 - 12   K036 - 12
K037 - 12   K038 - 12   K039 - 12   K040 - 12   K041 - 12   K042 - 12
K043 - 12   K044 - 12   K045 - 12   K046 - 12   K047 - 12   K048 - 12
```

K049 - 12	K050 - 12	K051 - 12	K052 - 12	K053 - 12	K054 - 12
K055 - 12	K056 - 12	K057 - 12	K058 - 12	K059 - 12	K060 - 12
K061 - 12	K062 - 12	K063 - 12	K064 - 12	K065 - 12	K066 - 12
K067 - 12	K068 - 12	K069 - 12	K070 - 12	K071 - 12	K072 - 12
K073 - 12	K074 - 12	K075 - 12			

#####END of file framing line #####

#####FILE: /usr/ips/aldars/tst/ST-01/ST-01C.sumI6 # Feb 13 @ 03:00:02
-rw-rw-r-- 1 aldars adasteam 9909 Feb 13 03:00 ST-01C.sumI6
#####START of file framing line #####
DR of ST-01C.I6AWO for messages/site count.

```
ADU#:  1 | (IPS): 02/13/98 02:18:11 - (ADAS): 02/13/98 02:18:11 | msgs 54
ADU#:  2 | (IPS): 02/13/98 02:18:24 - (ADAS): 02/13/98 02:18:24 | msgs 21
ADU#:  3 | (IPS): 02/13/98 02:19:11 - (ADAS): 02/13/98 02:19:11 | msgs 54
ADU#:  4 | (IPS): 02/13/98 02:19:21 - (ADAS): 02/13/98 02:19:21 | msgs 21
ADU#:  5 | (IPS): 02/13/98 02:20:16 - (ADAS): 02/13/98 02:20:16 | msgs 54
ADU#:  6 | (IPS): 02/13/98 02:20:21 - (ADAS): 02/13/98 02:20:21 | msgs 21
ADU#:  7 | (IPS): 02/13/98 02:21:18 - (ADAS): 02/13/98 02:21:18 | msgs 54
ADU#:  8 | (IPS): 02/13/98 02:21:22 - (ADAS): 02/13/98 02:21:22 | msgs 21
ADU#:  9 | (IPS): 02/13/98 02:22:11 - (ADAS): 02/13/98 02:22:11 | msgs 54
ADU#: 10 | (IPS): 02/13/98 02:22:23 - (ADAS): 02/13/98 02:22:23 | msgs 21
ADU#: 11 | (IPS): 02/13/98 02:23:13 - (ADAS): 02/13/98 02:23:13 | msgs 54
ADU#: 12 | (IPS): 02/13/98 02:23:23 - (ADAS): 02/13/98 02:23:23 | msgs 21
ADU#: 13 | (IPS): 02/13/98 02:24:17 - (ADAS): 02/13/98 02:24:17 | msgs 54
ADU#: 14 | (IPS): 02/13/98 02:24:29 - (ADAS): 02/13/98 02:24:29 | msgs 21
ADU#: 15 | (IPS): 02/13/98 02:25:15 - (ADAS): 02/13/98 02:25:15 | msgs 54
ADU#: 16 | (IPS): 02/13/98 02:25:32 - (ADAS): 02/13/98 02:25:32 | msgs 21
ADU#: 17 | (IPS): 02/13/98 02:26:14 - (ADAS): 02/13/98 02:26:14 | msgs 54
ADU#: 18 | (IPS): 02/13/98 02:26:30 - (ADAS): 02/13/98 02:26:30 | msgs 21
ADU#: 19 | (IPS): 02/13/98 02:27:15 - (ADAS): 02/13/98 02:27:15 | msgs 54
ADU#: 20 | (IPS): 02/13/98 02:27:35 - (ADAS): 02/13/98 02:27:35 | msgs 21
ADU#: 21 | (IPS): 02/13/98 02:28:14 - (ADAS): 02/13/98 02:28:14 | msgs 54
ADU#: 22 | (IPS): 02/13/98 02:28:37 - (ADAS): 02/13/98 02:28:37 | msgs 21
ADU#: 23 | (IPS): 02/13/98 02:29:20 - (ADAS): 02/13/98 02:29:20 | msgs 54
ADU#: 24 | (IPS): 02/13/98 02:29:34 - (ADAS): 02/13/98 02:29:34 | msgs 21
```

Total Site Reports Processed = 900
Total number of sites = 75

Site ID # of msgs (6 per line)

K002 - 12	K003 - 12	K004 - 12	K005 - 12	K006 - 12	K007 - 12
K008 - 12	K009 - 12	K01 - 12	K010 - 12	K011 - 12	K012 - 12
K013 - 12	K014 - 12	K015 - 12	K016 - 12	K017 - 12	K018 - 12
K019 - 12	K020 - 12	K021 - 12	K022 - 12	K023 - 12	K024 - 12
K025 - 12	K026 - 12	K027 - 12	K028 - 12	K029 - 12	K030 - 12
K031 - 12	K032 - 12	K033 - 12	K034 - 12	K035 - 12	K036 - 12
K037 - 12	K038 - 12	K039 - 12	K040 - 12	K041 - 12	K042 - 12
K043 - 12	K044 - 12	K045 - 12	K046 - 12	K047 - 12	K048 - 12
K049 - 12	K050 - 12	K051 - 12	K052 - 12	K053 - 12	K054 - 12
K055 - 12	K056 - 12	K057 - 12	K058 - 12	K059 - 12	K060 - 12
K061 - 12	K062 - 12	K063 - 12	K064 - 12	K065 - 12	K066 - 12
K067 - 12	K068 - 12	K069 - 12	K070 - 12	K071 - 12	K072 - 12
K073 - 12	K074 - 12	K075 - 12			

#####END of file framing line #####

INPUT MESSAGE #: 4

```
  RECEIVE TIME (ADAS):   02/13/98 02:18:26
++++++++++++++++++++++++++++++++++++++++
858   RMS ID:                 0x01        LOGICAL UNIT ID:      0x24
860   DATE:                 02/13/98               TIME:                 02:18:27
877   DATAPOINT ID:           0x04        CONDITION STATUS:     0x40
879   PARAMETER VALUE:        (00000) Decimal
882   DATAPOINT ID:           0x05        CONDITION STATUS:     0x40
884   PARAMETER VALUE:        (00000) Decimal

INPUT MESSAGE #:        158
  RECEIVE TIME (ADAS):   02/13/98 02:25:07
++++++++++++++++++++++++++++++++++++++++
21378   RMS ID:                 0x01          LOGICAL UNIT ID:      0x24
21380   DATE:                 02/13/98        TIME:               02:25:05
21382   DATAPOINT ID:           0x04          CONDITION STATUS:     0x40
21384   PARAMETER VALUE:        (00000) Decimal
21387   DATAPOINT ID:           0x05          CONDITION STATUS:     0x40
21389   PARAMETER VALUE:        (00000) Decimal

INPUT MESSAGE #:        162
  RECEIVE TIME (ADAS):   02/13/98 02:28:38
++++++++++++++++++++++++++++++++++++++++
22258   RMS ID:                 0x01          LOGICAL UNIT ID:      0x24
22260   DATE:                 02/13/98        TIME:               02:28:19
22277   DATAPOINT ID:           0x04          CONDITION STATUS:     0x40
22279   PARAMETER VALUE:        (00000) Decimal
22282   DATAPOINT ID:           0x05          CONDITION STATUS:     0x40
22284   PARAMETER VALUE:        (00000) Decimal

#####FILE: /usr/ips/aldars/tst/ST-01/ST-01C.lddI6  # Feb 13 @ 03:01:30
-rw-rw-r--   1 aldars   adasteam  299396 Feb 13 02:39 ST-01C.lddI6
#####START of file framing line #####
INPUT MESSAGE LOG - TEST ID: ST-01    VERS: 1
 1: RECEIVE TIME: 02/13/98 02:17:36  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
 2: RECEIVE TIME: 02/13/98 02:17:41  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
 3: RECEIVE TIME: 02/13/98 02:17:46  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
 4: RECEIVE TIME: 02/13/98 02:17:51  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
 5: RECEIVE TIME: 02/13/98 02:17:56  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
 6: RECEIVE TIME: 02/13/98 02:18:04  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
 7: RECEIVE TIME: 02/13/98 02:18:18  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
 8: RECEIVE TIME: 02/13/98 02:18:18  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 77
 9: RECEIVE TIME: 02/13/98 02:18:20  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 67
10: RECEIVE TIME: 02/13/98 02:18:24  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
11: RECEIVE TIME: 02/13/98 02:18:28  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
12: RECEIVE TIME: 02/13/98 02:18:33  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
13: RECEIVE TIME: 02/13/98 02:18:37  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
14: RECEIVE TIME: 02/13/98 02:18:43  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
15: RECEIVE TIME: 02/13/98 02:18:48  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 72
16: RECEIVE TIME: 02/13/98 02:18:53  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 52
17: RECEIVE TIME: 02/13/98 02:24:21  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
18: RECEIVE TIME: 02/13/98 02:24:29  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 94
19: RECEIVE TIME: 02/13/98 02:24:30  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
20: RECEIVE TIME: 02/13/98 02:24:31  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 524
21: RECEIVE TIME: 02/13/98 02:24:32  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 661
22: RECEIVE TIME: 02/13/98 02:24:39  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
23: RECEIVE TIME: 02/13/98 02:24:43  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
24: RECEIVE TIME: 02/13/98 02:24:49  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
25: RECEIVE TIME: 02/13/98 02:24:54  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
```

```
26: RECEIVE TIME: 02/13/98 02:25:00  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
27: RECEIVE TIME: 02/13/98 02:25:07  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
28: RECEIVE TIME: 02/13/98 02:25:22  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
29: RECEIVE TIME: 02/13/98 02:25:23  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
30: RECEIVE TIME: 02/13/98 02:25:23  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 177
31: RECEIVE TIME: 02/13/98 02:25:33  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
32: RECEIVE TIME: 02/13/98 02:25:34  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
33: RECEIVE TIME: 02/13/98 02:25:36  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
34: RECEIVE TIME: 02/13/98 02:25:39  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 679
35: RECEIVE TIME: 02/13/98 02:25:44  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 625
36: RECEIVE TIME: 02/13/98 02:25:50  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 560
37: RECEIVE TIME: 02/13/98 02:25:55  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
38: RECEIVE TIME: 02/13/98 02:26:02  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
39: RECEIVE TIME: 02/13/98 02:26:07  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
40: RECEIVE TIME: 02/13/98 02:26:21  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
41: RECEIVE TIME: 02/13/98 02:26:29  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 567
42: RECEIVE TIME: 02/13/98 02:26:41  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 567
43: RECEIVE TIME: 02/13/98 02:26:41  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
44: RECEIVE TIME: 02/13/98 02:26:43  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
45: RECEIVE TIME: 02/13/98 02:26:51  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
46: RECEIVE TIME: 02/13/98 02:26:51  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
47: RECEIVE TIME: 02/13/98 02:26:53  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
48: RECEIVE TIME: 02/13/98 02:26:55  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 679
49: RECEIVE TIME: 02/13/98 02:27:01  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
50: RECEIVE TIME: 02/13/98 02:27:07  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 506
51: RECEIVE TIME: 02/13/98 02:27:23  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 679
52: RECEIVE TIME: 02/13/98 02:27:24  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
53: RECEIVE TIME: 02/13/98 02:27:24  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 242
54: RECEIVE TIME: 02/13/98 02:27:35  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
55: RECEIVE TIME: 02/13/98 02:27:36  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
56: RECEIVE TIME: 02/13/98 02:27:42  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
57: RECEIVE TIME: 02/13/98 02:27:45  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
58: RECEIVE TIME: 02/13/98 02:27:47  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
59: RECEIVE TIME: 02/13/98 02:27:51  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
60: RECEIVE TIME: 02/13/98 02:27:58  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
61: RECEIVE TIME: 02/13/98 02:28:02  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
62: RECEIVE TIME: 02/13/98 02:28:21  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
63: RECEIVE TIME: 02/13/98 02:28:25  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 679
64: RECEIVE TIME: 02/13/98 02:28:35  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 567
65: RECEIVE TIME: 02/13/98 02:28:41  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 571
66: RECEIVE TIME: 02/13/98 02:28:43  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 614
67: RECEIVE TIME: 02/13/98 02:28:44  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
68: RECEIVE TIME: 02/13/98 02:28:48  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
69: RECEIVE TIME: 02/13/98 02:28:51  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
70: RECEIVE TIME: 02/13/98 02:28:53  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
71: RECEIVE TIME: 02/13/98 02:28:57  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
72: RECEIVE TIME: 02/13/98 02:29:08  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
73: RECEIVE TIME: 02/13/98 02:29:22  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
74: RECEIVE TIME: 02/13/98 02:29:33  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
75: RECEIVE TIME: 02/13/98 02:29:33  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
76: RECEIVE TIME: 02/13/98 02:29:42  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 697
77: RECEIVE TIME: 02/13/98 02:29:42  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 632
78: RECEIVE TIME: 02/13/98 02:29:42  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 614
79: RECEIVE TIME: 02/13/98 02:29:50  TYPE: ITWS6_LDD_MSG  MESSAGE SIZE: 625
#####END of file framing line #####
```

C.10.1.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "ST-01.TCF".

TEST # **ST-01** TESTED BY: _____ Jock K. Stratton _____ DATE: _13/FEB/97_ TIME: _02:08_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter '**cap_itd st-01**'	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 96**"	AUC Displays: Config 96 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': '**isi [RTN] test12 [RTN]**'	@IUC: SUCCESSFULLY malloc (15000)	[X] Pass [ ] Fail	Stop Test
7.	Start test "ST-01" w/ RETRY set to "YES". @ISC: "**[F8] [F7] ST-01 <13:[RTN]> [SP] <2:[RTN]>**"	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter '**sa clean**'	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	After ADAS updates MPS, ack IPS 45-50 sec in cycle. @ISC: "**{wait} <2:[F14]> {wait} [F7]**" @IUC: "**{wait for Pong 4 Dump}**" @ISC: "**{wait for 45 second mark} [F7]**"	The IPS Event Windows displays prompt. The ADAS updates the MPS. The IPS switches lightning scripts.	[X] Pass [ ] Fail	Stop Test
10.	When prompted by IPS, login, report event types 15 & 17 entries, logout, then acknowledge the prompt. @ISI: "**{wait} <2:[F14]> [F6] {wait} [F7]**" @ASC: "**si [RTN] test12 [RTN] [F13] [F7] [F2] [F14] [F11] <7:[RTN]> 17 [F2] [RTN] {wait} [F2] [F14] [F11] <7:[RTN]> 15 [RTN] {wait} [F2] <2:[F14]> [F7] [F8] [SP] [RTN]**" @ISC: "**[F7]**"	The Specialist Interface starts up. The PC captures the screen prints. The PC captures the report output. The ASC displays the 'login' prompt. The ISI Event Window closes.	[X] Pass [ ] Fail	Stop Test
11.	After the test terminates, shutdown ADAS. @ISI: "**{wait} [F7] <2:[F14]>**" @AUC 'adas' prompt: enter '**stop_adas**'	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test

TEST # **ST-01** TESTED BY: _____ Jock K. Stratton _____ DATE: _13/FEB/97_ TIME: _02:08_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
12.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] [F8] [F7] ST-01 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
13.	Output the IML: DLP AWOS to file. @ISC: **"[F7] [F8] [F7] ST-01 <2:[RTN]> [SP] [RTN] D <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
14.	Output the IML: ITWS 6 AWOS to file. @ISC: **"[F7] ST-01 <2:[RTN]> [SP] [RTN] I <2:[RIGHT]> <2:[DOWN]> <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
15.	Output the IML: MPS ALARM to file. @ISC: **"[F7] ST-01 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
16.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] ST-01 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI Default screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
17.	@Patch Panel: Re-direct the IPS LOG to the PC.	The LOG output is re-directed to the PC.	**[X]** Pass [ ] Fail	Redo Step
18.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
19.	After test data is captured, shutdown procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	The test data scrolls on screen while being captured. Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

C.10.2. TEST ST-02 - All Stations Adverse

The following paragraphs provide information about data associated with this test but not included within the main body of this report.

C.10.2.1. Associated Evaluation Criteria and Data

The following Evaluation Criteria were used to determine the requirements passed/failed. The Cross Reference (CR) numbers can be used to trace into the data found/referenced below.

	Pass	Fail	
a.	[XX]	[ ]	Each procedure step's "pass" box, in the 'Observed Results' column, was marked, indicating the 'Expected Response' was observed. (See Appendix C for the test procedure performed for test ST-02.)
b.	[XX]	[ ]	The display EVENT/ERROR LOG PARAMETERS screen print must indicate zero records in the error log CR9, and the EVENT LOG DATA REQUEST FOR PRINTER OUTPUT for Event type 17 CR10, and its RESPONSE CR11 screen prints must indicate there are no Event Type 17's entries.
c.	[XX]	[ ]	The length of the processing phase (the mission phase of the mission cycle) must not exceed 26.7 (27 due to the one second resolution of the system timing).This was calculated from the ADAS Events indicating the beginning of the mission phase timestamp CR1 subtracted from the beginning of the completion slp phase timestamp CR2, for mission cycle of the test..
d.	[XX]	[ ]	The DLP CR3 and ITWS6 CR4 DR summaries must indicate that 75 messages are received each mission cycle. (CR3 = CR4 = 75 * (#_of_mission_cycles)).
e.	[XX]	[ ]	The WMSCR CR5 logs must indicate that 50 messages are received during the first mission cycle, and 75 messages per mission cycle for the remainder of the test.
f.	[XX]	[ ]	The MPS simulator log must show that no METAR 5 second alarms (LU #24, DP# 05 = 0 CR7) or 10 second alarms (LU#24, DP#04 = 0 CR8) were generated, i.e`. the MPS ALARM Log does not contain alarm entries for 5 or 10 second throughput alarms.

The following data marked with evaluation criteria cross-reference numbers is a subset of the relevant OT&E formal test run data that has been included into ST-02's Test Conduct Form (TCF) file, "ST-01.TCF".

....
. 02-13-98 03:36:47 . Events: 0 . Responses: 0 . EVENT/ERROR CMDS .
....

DISPLAY EVENT/ERROR LOG PARAMETERS

ERROR LOG FILE PATHNAME: /usr/adas/adasrun/data/SL/erl
EVENT LOG FILE PATHNAME: /usr/adas/adasrun/data/SL/evl
ERROR LOG ROLLOVER FILE PATHNAME: /usr/adas/adasrun/data/SL/erl.ro
EVENT LOG ROLLOVER FILE PATHNAME: /usr/adas/adasrun/data/SL/evl.ro

FILE NAME:	BYTE SIZE:	RECORD COUNT:	DATE/TIME LAST UPDATE:
erl	0	0	Fri Feb 13 03:20:57 1998
evl	90576	1982	Fri Feb 13 03:36:47 1998
erl.ro	0	0	Thu Jan 1 00:00:00 1970
evl.ro	0	0	Thu Jan 1 00:00:00 1970

... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... EXIT. F14 .

. 02-13-98 03:37:07 . Events: 0 . Responses: 0 . EVENT/ERROR CMDS .

EVENT LOG DATA REQUEST FOR PRINTER OUTPUT

PRIMARY SEARCH KEY DATA:
START DATE: 02/13/98 STOP DATE: 02/13/98
START TIME: 00:00:00 STOP TIME: 03:37:02

SECONDARY SEARCH KEY DATA:
BEGIN EVENT SEQUENCE NUMBER: 0
END EVENT SEQUENCE NUMBER: 0
EVENT TYPE: 17

ENTER INTEGER VALUE FOR THE EVENT TYPE NUMBER.

... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... EXIT. F14 .

. 02-13-98 03:37:14 . Events: 0 . Responses: 0 . EVENT/ERROR CMDS

RESPONSE CONTROL MESSAGE STATUS

COMMAND NAME: [REPORT EVNT/ERR LOG]

RESPONSE STATUS: FAILURE

REMARKS: THERE IS NO EVENT/ERROR LOG DATA MATCHING THE SEARCH KEYS.

PRESS EXIT KEY TO QUIT WINDOW.

....
..
.
.
... F7 ...... F8 ...... F9 ..... F10 ..... F11 ..... F12 ..... F13 ..... F14
...

EXIT

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:28:00
EVENT SEQ. NUMBER: 95 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:28:13
EVENT SEQ. NUMBER: 97 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:29:00
EVENT SEQ. NUMBER: 1889 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:29:13
EVENT SEQ. NUMBER: 1891 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:30:00
EVENT SEQ. NUMBER: 1902 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:30:16
EVENT SEQ. NUMBER: 1905 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:31:00
EVENT SEQ. NUMBER: 1919 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:31:14
EVENT SEQ. NUMBER: 1921 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:32:00
EVENT SEQ. NUMBER: 1929 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:32:14
EVENT SEQ. NUMBER: 1931 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:33:00
EVENT SEQ. NUMBER: 1939 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:33:13
EVENT SEQ. NUMBER: 1944 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:34:00
EVENT SEQ. NUMBER: 1952 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:34:14
EVENT SEQ. NUMBER: 1953 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:35:00
EVENT SEQ. NUMBER: 1960 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:35:15
EVENT SEQ. NUMBER: 1962 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:36:00
EVENT SEQ. NUMBER: 1969 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:36:13
EVENT SEQ. NUMBER: 1971 EVENT TYPE: 15 CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

EVENT PRIORITY: normal DATE/TIME STAMP: 02-13-98 03:37:00

EVENT SEQ. NUMBER: 1983   EVENT TYPE: 15   CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: mission

EVENT PRIORITY: normal   DATE/TIME STAMP: 02-13-98 03:37:14
EVENT SEQ. NUMBER: 1987   EVENT TYPE: 15   CSC ID: 12.01
One of the one minute cycle phases has begun.

phase: completion slp

```
#####FILE: /usr/ips/aldars/tst/ST-02/ST-02A.sumME  # Feb 13 @ 04:13:01
-rw-rw-r--   1 aldars   adasteam    8559 Feb 13 03:51 ST-02A.sumME
#####START of file framing line #####
DR of ST-02A.METAR for # of Metar reports per site

ADU #  1 | (IPS): 02/13/98 03:28:11 - (ADAS): 02/13/98 03:28:11 | msgs 23 (23)
ADU #  2 | (IPS): 02/13/98 03:28:22 - (ADAS): 02/13/98 03:28:22 | msgs 2 (2)
ADU #  3 | (IPS): 02/13/98 03:28:22 - (ADAS): 02/13/98 03:28:22 | msgs 25 (25)
ADU #  4 | (IPS): 02/13/98 03:29:11 - (ADAS): 02/13/98 03:29:11 | msgs 38 (38)
ADU #  5 | (IPS): 02/13/98 03:29:26 - (ADAS): 02/13/98 03:29:26 | msgs 12 (12)
ADU #  6 | (IPS): 02/13/98 03:30:07 - (ADAS): 02/13/98 03:30:07 | msgs 25 (25)
ADU #  7 | (IPS): 02/13/98 03:30:08 - (ADAS): 02/13/98 03:30:08 | msgs 34 (34)
ADU #  8 | (IPS): 02/13/98 03:30:25 - (ADAS): 02/13/98 03:30:25 | msgs 15 (15)
ADU #  9 | (IPS): 02/13/98 03:30:27 - (ADAS): 02/13/98 03:30:27 | msgs 1 (1)
ADU # 10 | (IPS): 02/13/98 03:30:39 - (ADAS): 02/13/98 03:30:39 | msgs 25 (25)
ADU # 11 | (IPS): 02/13/98 03:31:09 - (ADAS): 02/13/98 03:31:09 | msgs 39 (39)
ADU # 12 | (IPS): 02/13/98 03:31:26 - (ADAS): 02/13/98 03:31:26 | msgs 11 (11)
ADU # 13 | (IPS): 02/13/98 03:31:39 - (ADAS): 02/13/98 03:31:39 | msgs 25 (25)
ADU # 14 | (IPS): 02/13/98 03:32:09 - (ADAS): 02/13/98 03:32:09 | msgs 38 (38)
ADU # 15 | (IPS): 02/13/98 03:32:26 - (ADAS): 02/13/98 03:32:26 | msgs 12 (12)
ADU # 16 | (IPS): 02/13/98 03:32:40 - (ADAS): 02/13/98 03:32:40 | msgs 25 (25)
ADU # 17 | (IPS): 02/13/98 03:33:09 - (ADAS): 02/13/98 03:33:09 | msgs 37 (37)
ADU # 18 | (IPS): 02/13/98 03:33:25 - (ADAS): 02/13/98 03:33:25 | msgs 13 (13)
ADU # 19 | (IPS): 02/13/98 03:33:36 - (ADAS): 02/13/98 03:33:36 | msgs 25 (25)
ADU # 20 | (IPS): 02/13/98 03:34:08 - (ADAS): 02/13/98 03:34:08 | msgs 38 (38)
ADU # 21 | (IPS): 02/13/98 03:34:27 - (ADAS): 02/13/98 03:34:27 | msgs 12 (12)
ADU # 22 | (IPS): 02/13/98 03:34:39 - (ADAS): 02/13/98 03:34:39 | msgs 25 (25)
ADU # 23 | (IPS): 02/13/98 03:35:10 - (ADAS): 02/13/98 03:35:10 | msgs 35 (35)
ADU # 24 | (IPS): 02/13/98 03:35:27 - (ADAS): 02/13/98 03:35:27 | msgs 15 (15)
ADU # 25 | (IPS): 02/13/98 03:35:42 - (ADAS): 02/13/98 03:35:42 | msgs 25 (25)
ADU # 26 | (IPS): 02/13/98 03:36:10 - (ADAS): 02/13/98 03:36:10 | msgs 38 (38)
ADU # 27 | (IPS): 02/13/98 03:36:26 - (ADAS): 02/13/98 03:36:26 | msgs 12 (12)
ADU # 28 | (IPS): 02/13/98 03:36:40 - (ADAS): 02/13/98 03:36:40 | msgs 25 (25)
ADU # 29 | (IPS): 02/13/98 03:37:09 - (ADAS): 02/13/98 03:37:09 | msgs 26 (26)
ADU # 30 | (IPS): 02/13/98 03:37:13 - (ADAS): 02/13/98 03:37:13 | msgs 22 (22)
ADU # 31 | (IPS): 02/13/98 03:37:30 - (ADAS): 02/13/98 03:37:30 | msgs 2 (2)
ADU # 32 | (IPS): 02/13/98 03:37:30 - (ADAS): 02/13/98 03:37:30 | msgs 25 (25)
ADU # 33 | (IPS): 02/13/98 03:38:16 - (ADAS): 02/13/98 03:38:16 | msgs 37 (37)
ADU # 34 | (IPS): 02/13/98 03:38:32 - (ADAS): 02/13/98 03:38:32 | msgs 13 (13)
ADU # 35 | (IPS): 02/13/98 03:38:50 - (ADAS): 02/13/98 03:38:50 | msgs 25 (25)
ADU # 36 | (IPS): 02/13/98 03:39:23 - (ADAS): 02/13/98 03:39:23 | msgs 37 (37)
ADU # 37 | (IPS): 02/13/98 03:39:39 - (ADAS): 02/13/98 03:39:39 | msgs 13 (13)
ADU # 38 | (IPS): 02/13/98 03:39:43 - (ADAS): 02/13/98 03:39:43 | msgs 25 (25)

Total Site Reports Processed  = 875
Total number of sites         = 75
```

Site ID # of msgs (6 per line)

K002 - 11	K003 - 11	K004 - 11	K005 - 11	K006 - 11	K007 - 11
K008 - 11	K009 - 11	K01 - 11	K010 - 11	K011 - 11	K012 - 11
K013 - 11	K014 - 11	K015 - 11	K016 - 11	K017 - 11	K018 - 11
K019 - 11	K020 - 11	K021 - 11	K022 - 11	K023 - 11	K024 - 11
K025 - 11	K026 - 12	K027 - 12	K028 - 12	K029 - 12	K030 - 12
K031 - 12	K032 - 12	K033 - 12	K034 - 12	K035 - 12	K036 - 12
K037 - 12	K038 - 12	K039 - 12	K040 - 12	K041 - 12	K042 - 12
K043 - 12	K044 - 12	K045 - 12	K046 - 12	K047 - 12	K048 - 12
K049 - 12	K050 - 12	K051 - 12	K052 - 12	K053 - 12	K054 - 12
K055 - 12	K056 - 12	K057 - 12	K058 - 12	K059 - 12	K060 - 12
K061 - 12	K062 - 12	K063 - 12	K064 - 12	K065 - 12	K066 - 12
K067 - 12	K068 - 12	K069 - 12	K070 - 12	K071 - 12	K072 - 12
K073 - 12	K074 - 12	K075 - 12			

#####END of file framing line #####

#####FILE: /usr/ips/aldars/tst/ST-02/ST-02A.sumDL # Feb 13 @ 04:13:11
-rw-rw-r-- 1 aldars adasteam 9525 Feb 13 04:02 ST-02A.sumDL
#####START of file framing line #####
DR of ST-02A.DLPAW for messages/site count.

1: 02/13/98 03:28:19	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
2: 02/13/98 03:28:23	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
3: 02/13/98 03:29:20	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
4: 02/13/98 03:29:26	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
5: 02/13/98 03:30:23	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
6: 02/13/98 03:30:25	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
7: 02/13/98 03:31:20	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
8: 02/13/98 03:31:26	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
9: 02/13/98 03:32:24	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
10: 02/13/98 03:32:26	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
11: 02/13/98 03:33:23	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
12: 02/13/98 03:33:26	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
13: 02/13/98 03:34:18	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
14: 02/13/98 03:34:27	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
15: 02/13/98 03:35:25	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
16: 02/13/98 03:35:29	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
17: 02/13/98 03:36:22	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
18: 02/13/98 03:36:27	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
19: 02/13/98 03:37:23	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
20: 02/13/98 03:37:28	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
21: 02/13/98 03:38:25	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
22: 02/13/98 03:38:31	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16
23: 02/13/98 03:39:38	msgs 59	SIZE: 4073	Type: DLP Awos	OMO's = 59
24: 02/13/98 03:39:42	msgs 16	SIZE: 1106	Type: DLP Awos	OMO's = 16

Total Site Reports Processed = 900
Total number of sites = 75

Site_ID #_of_msgs (6 per line)

K002 - 12	K003 - 12	K004 - 12	K005 - 12	K006 - 12	K007 - 12
K008 - 12	K009 - 12	K01 - 12	K010 - 12	K011 - 12	K012 - 12
K013 - 12	K014 - 12	K015 - 12	K016 - 12	K017 - 12	K018 - 12
K019 - 12	K020 - 12	K021 - 12	K022 - 12	K023 - 12	K024 - 12
K025 - 12	K026 - 12	K027 - 12	K028 - 12	K029 - 12	K030 - 12
K031 - 12	K032 - 12	K033 - 12	K034 - 12	K035 - 12	K036 - 12

K037 - 12	K038 - 12	K039 - 12	K040 - 12	K041 - 12	K042 - 12
K043 - 12	K044 - 12	K045 - 12	K046 - 12	K047 - 12	K048 - 12
K049 - 12	K050 - 12	K051 - 12	K052 - 12	K053 - 12	K054 - 12
K055 - 12	K056 - 12	K057 - 12	K058 - 12	K059 - 12	K060 - 12
K061 - 12	K062 - 12	K063 - 12	K064 - 12	K065 - 12	K066 - 12
K067 - 12	K068 - 12	K069 - 12	K070 - 12	K071 - 12	K072 - 12
K073 - 12	K074 - 12	K075 - 12			

#####END of file framing line #####

#####FILE: /usr/ips/aldars/tst/ST-02/ST-02A.sumI6 # Feb 13 @ 04:13:21
-rw-rw-r-- 1 aldars adasteam 9909 Feb 13 04:13 ST-02A.sumI6
#####START of file framing line #####
DR of ST-02A.I6AWO for messages/site count.

1: 02/13/98 03:28:18	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
2: 02/13/98 03:28:26	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
3: 02/13/98 03:29:19	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
4: 02/13/98 03:29:29	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
5: 02/13/98 03:30:22	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
6: 02/13/98 03:30:38	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
7: 02/13/98 03:31:18	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
8: 02/13/98 03:31:31	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
9: 02/13/98 03:32:21	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
10: 02/13/98 03:32:36	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
11: 02/13/98 03:33:21	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
12: 02/13/98 03:33:38	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
13: 02/13/98 03:34:26	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
14: 02/13/98 03:34:41	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
15: 02/13/98 03:35:23	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
16: 02/13/98 03:35:41	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
17: 02/13/98 03:36:20	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
18: 02/13/98 03:36:44	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
19: 02/13/98 03:37:21	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
20: 02/13/98 03:37:48	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
21: 02/13/98 03:38:23	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
22: 02/13/98 03:38:45	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11
23: 02/13/98 03:39:34	msgs 58	SIZE: 4049	Type: ITWS6 Awos	msgs 0x3a
24: 02/13/98 03:39:48	msgs 17	SIZE: 1220	Type: ITWS6 Awos	msgs 0x11

Total Site Reports Processed = 900
Total number of sites = 75

Site ID # of msgs (6 per line)

K002 - 12	K003 - 12	K004 - 12	K005 - 12	K006 - 12	K007 - 12
K008 - 12	K009 - 12	K01 - 12	K010 - 12	K011 - 12	K012 - 12
K013 - 12	K014 - 12	K015 - 12	K016 - 12	K017 - 12	K018 - 12
K019 - 12	K020 - 12	K021 - 12	K022 - 12	K023 - 12	K024 - 12
K025 - 12	K026 - 12	K027 - 12	K028 - 12	K029 - 12	K030 - 12
K031 - 12	K032 - 12	K033 - 12	K034 - 12	K035 - 12	K036 - 12
K037 - 12	K038 - 12	K039 - 12	K040 - 12	K041 - 12	K042 - 12
K043 - 12	K044 - 12	K045 - 12	K046 - 12	K047 - 12	K048 - 12
K049 - 12	K050 - 12	K051 - 12	K052 - 12	K053 - 12	K054 - 12
K055 - 12	K056 - 12	K057 - 12	K058 - 12	K059 - 12	K060 - 12
K061 - 12	K062 - 12	K063 - 12	K064 - 12	K065 - 12	K066 - 12
K067 - 12	K068 - 12	K069 - 12	K070 - 12	K071 - 12	K072 - 12
K073 - 12	K074 - 12	K075 - 12			

```
INPUT MESSAGE #:        158
  RECEIVE TIME (ADAS):    02/13/98 03:35:10
++++++++++++++++++++++++++++++++++++++++
21378   RMS ID:                 0x01            LOGICAL UNIT ID:      0x24

21380   DATE:                 02/13/98          TIME:                 03:35:06
21382   DATAPOINT ID:           0x04            CONDITION STATUS:     0x40
21384   PARAMETER VALUE:        (00000) Decimal
21387   DATAPOINT ID:           0x05            CONDITION STATUS:     0x40
21389   PARAMETER VALUE:        (00000) Decimal

INPUT MESSAGE #:        162
  RECEIVE TIME (ADAS):    02/13/98 03:38:56
++++++++++++++++++++++++++++++++++++++++
22258   RMS ID:                 0x01            LOGICAL UNIT ID:      0x24

22260   DATE:                 02/13/98          TIME:                 03:38:26
22277   DATAPOINT ID:           0x04            CONDITION STATUS:     0x40
22279   PARAMETER VALUE:        (00000) Decimal
22282   DATAPOINT ID:           0x05            CONDITION STATUS:     0x40
22284   PARAMETER VALUE:        (00000) Decimal

#####FILE: /usr/ips/aldars/tst/ST-02/ST-02A.lddI6  # Feb 13 @ 04:13:46
-rw-rw-r--   1 aldars   adasteam   32177 Feb 13 04:05 ST-02A.lddI6
#####START of file framing line #####
INPUT MESSAGE LOG - TEST ID: ST-02    VERS: 1

 1:  RECEIVE TIME: 02/13/98 03:27:39  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
 2:  RECEIVE TIME: 02/13/98 03:27:49  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
 3:  RECEIVE TIME: 02/13/98 03:27:49  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
 4:  RECEIVE TIME: 02/13/98 03:27:59  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
 5:  RECEIVE TIME: 02/13/98 03:28:00  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
 6:  RECEIVE TIME: 02/13/98 03:28:10  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
 7:  RECEIVE TIME: 02/13/98 03:28:21  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 77
 8:  RECEIVE TIME: 02/13/98 03:28:24  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
 9:  RECEIVE TIME: 02/13/98 03:28:24  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 67
10:  RECEIVE TIME: 02/13/98 03:28:30  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
11:  RECEIVE TIME: 02/13/98 03:28:31  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
12:  RECEIVE TIME: 02/13/98 03:28:38  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
13:  RECEIVE TIME: 02/13/98 03:28:41  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
14:  RECEIVE TIME: 02/13/98 03:28:48  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 72
15:  RECEIVE TIME: 02/13/98 03:28:51  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 57
16:  RECEIVE TIME: 02/13/98 03:30:11  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
17:  RECEIVE TIME: 02/13/98 03:30:27  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
18:  RECEIVE TIME: 02/13/98 03:30:37  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
19:  RECEIVE TIME: 02/13/98 03:30:37  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 159
20:  RECEIVE TIME: 02/13/98 03:30:46  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
21:  RECEIVE TIME: 02/13/98 03:30:46  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 459
22:  RECEIVE TIME: 02/13/98 03:30:46  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 596
23:  RECEIVE TIME: 02/13/98 03:30:49  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
24:  RECEIVE TIME: 02/13/98 03:30:50  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
25:  RECEIVE TIME: 02/13/98 03:30:58  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
26:  RECEIVE TIME: 02/13/98 03:30:59  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
27:  RECEIVE TIME: 02/13/98 03:31:09  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
28:  RECEIVE TIME: 02/13/98 03:31:11  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
29:  RECEIVE TIME: 02/13/98 03:31:29  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
30:  RECEIVE TIME: 02/13/98 03:31:29  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 567
31:  RECEIVE TIME: 02/13/98 03:31:44  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
```

32:	RECEIVE TIME:	02/13/98 03:31:44	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
33:	RECEIVE TIME:	02/13/98 03:31:48	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
34:	RECEIVE TIME:	02/13/98 03:31:52	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 614
35:	RECEIVE TIME:	02/13/98 03:31:53	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 625
36:	RECEIVE TIME:	02/13/98 03:31:59	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 625
37:	RECEIVE TIME:	02/13/98 03:32:05	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
38:	RECEIVE TIME:	02/13/98 03:32:08	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
39:	RECEIVE TIME:	02/13/98 03:32:11	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
40:	RECEIVE TIME:	02/13/98 03:32:28	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
41:	RECEIVE TIME:	02/13/98 03:32:32	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
42:	RECEIVE TIME:	02/13/98 03:32:47	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
43:	RECEIVE TIME:	02/13/98 03:32:47	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
44:	RECEIVE TIME:	02/13/98 03:32:50	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
45:	RECEIVE TIME:	02/13/98 03:32:57	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
46:	RECEIVE TIME:	02/13/98 03:32:57	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
47:	RECEIVE TIME:	02/13/98 03:32:59	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
48:	RECEIVE TIME:	02/13/98 03:33:00	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 614
49:	RECEIVE TIME:	02/13/98 03:33:08	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
50:	RECEIVE TIME:	02/13/98 03:33:11	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 553
51:	RECEIVE TIME:	02/13/98 03:33:28	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
52:	RECEIVE TIME:	02/13/98 03:33:36	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 567
53:	RECEIVE TIME:	02/13/98 03:33:37	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 112
54:	RECEIVE TIME:	02/13/98 03:33:43	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 567
55:	RECEIVE TIME:	02/13/98 03:33:43	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
56:	RECEIVE TIME:	02/13/98 03:33:50	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
57:	RECEIVE TIME:	02/13/98 03:33:51	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
58:	RECEIVE TIME:	02/13/98 03:33:52	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
59:	RECEIVE TIME:	02/13/98 03:33:57	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
60:	RECEIVE TIME:	02/13/98 03:34:03	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
61:	RECEIVE TIME:	02/13/98 03:34:07	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
62:	RECEIVE TIME:	02/13/98 03:34:10	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
63:	RECEIVE TIME:	02/13/98 03:34:29	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
64:	RECEIVE TIME:	02/13/98 03:34:41	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 614
65:	RECEIVE TIME:	02/13/98 03:34:43	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 625
66:	RECEIVE TIME:	02/13/98 03:34:49	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 560
67:	RECEIVE TIME:	02/13/98 03:34:50	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
68:	RECEIVE TIME:	02/13/98 03:34:52	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
69:	RECEIVE TIME:	02/13/98 03:34:54	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
70:	RECEIVE TIME:	02/13/98 03:34:55	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
71:	RECEIVE TIME:	02/13/98 03:35:05	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
72:	RECEIVE TIME:	02/13/98 03:35:08	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
73:	RECEIVE TIME:	02/13/98 03:35:11	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
74:	RECEIVE TIME:	02/13/98 03:35:28	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
75:	RECEIVE TIME:	02/13/98 03:35:40	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
76:	RECEIVE TIME:	02/13/98 03:35:40	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 372
77:	RECEIVE TIME:	02/13/98 03:35:49	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
78:	RECEIVE TIME:	02/13/98 03:35:49	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
79:	RECEIVE TIME:	02/13/98 03:35:53	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 614
80:	RECEIVE TIME:	02/13/98 03:35:57	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 625
81:	RECEIVE TIME:	02/13/98 03:35:57	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 625
82:	RECEIVE TIME:	02/13/98 03:35:57	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
83:	RECEIVE TIME:	02/13/98 03:36:05	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 697
84:	RECEIVE TIME:	02/13/98 03:36:08	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
85:	RECEIVE TIME:	02/13/98 03:36:26	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
86:	RECEIVE TIME:	02/13/98 03:36:31	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632
87:	RECEIVE TIME:	02/13/98 03:36:35	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 502
88:	RECEIVE TIME:	02/13/98 03:36:45	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 567
89:	RECEIVE TIME:	02/13/98 03:36:51	MSG TYPE:	ITWS6_LDD_MSG	MSG SIZE: 632

```
90:  RECEIVE TIME: 02/13/98 03:36:54  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
91:  RECEIVE TIME: 02/13/98 03:36:54  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
92:  RECEIVE TIME: 02/13/98 03:36:56  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
93:  RECEIVE TIME: 02/13/98 03:36:57  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
94:  RECEIVE TIME: 02/13/98 03:36:58  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 679
95:  RECEIVE TIME: 02/13/98 03:37:08  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 560
96:  RECEIVE TIME: 02/13/98 03:37:12  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 495
97:  RECEIVE TIME: 02/13/98 03:37:28  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
98:  RECEIVE TIME: 02/13/98 03:37:32  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
99:  RECEIVE TIME: 02/13/98 03:37:41  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 372
100:  RECEIVE TIME: 02/13/98 03:37:49  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
101:  RECEIVE TIME: 02/13/98 03:37:50  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
102:  RECEIVE TIME: 02/13/98 03:37:59  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
103:  RECEIVE TIME: 02/13/98 03:37:59  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
104:  RECEIVE TIME: 02/13/98 03:38:02  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
105:  RECEIVE TIME: 02/13/98 03:38:08  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
106:  RECEIVE TIME: 02/13/98 03:38:08  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
107:  RECEIVE TIME: 02/13/98 03:38:10  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
108:  RECEIVE TIME: 02/13/98 03:38:27  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
109:  RECEIVE TIME: 02/13/98 03:38:44  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 679
110:  RECEIVE TIME: 02/13/98 03:38:45  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 495
111:  RECEIVE TIME: 02/13/98 03:38:56  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 625
112:  RECEIVE TIME: 02/13/98 03:38:57  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
113:  RECEIVE TIME: 02/13/98 03:39:00  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
114:  RECEIVE TIME: 02/13/98 03:39:09  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
115:  RECEIVE TIME: 02/13/98 03:39:11  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
116:  RECEIVE TIME: 02/13/98 03:39:14  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
117:  RECEIVE TIME: 02/13/98 03:39:18  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
118:  RECEIVE TIME: 02/13/98 03:39:21  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
119:  RECEIVE TIME: 02/13/98 03:39:24  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632
120:  RECEIVE TIME: 02/13/98 03:39:41  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
121:  RECEIVE TIME: 02/13/98 03:39:43  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
122:  RECEIVE TIME: 02/13/98 03:39:49  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 697
123:  RECEIVE TIME: 02/13/98 03:39:51  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 679
124:  RECEIVE TIME: 02/13/98 03:39:53  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 614
125:  RECEIVE TIME: 02/13/98 03:39:54  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 571
126:  RECEIVE TIME: 02/13/98 03:39:55  MSG TYPE: ITWS6_LDD_MSG  MSG SIZE: 632

#####END of file framing line #####
```

C.10.2.2. TCF Test Procedure Steps

The following test procedure steps, referenced by evaluation criteria "a" of this test's 'Data Reduction and Analysis Method' paragraph in the main body of this report, were extracted from test procedure file "ST-02.TCF".

TEST # **ST-02** TESTED BY: _____ Jock K. Stratton _____ DATE: _13/FEB/98_ TIME: _03:20_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
1.	@Testbed: Verify the ADAS/IPS X.25 connection.	The ADAS & IPS X.25 ports are connected.	[X] Pass [ ] Fail	Redo Step
2.	@Patch Panel: Verify the SEP is connected to a PC.	A Patch Cord connects the SEP to a PC.	[X] Pass [ ] Fail	Redo Step
3.	@PC DOS prompt: enter '**cap_itd st-02**'	Procomm starts, with the log file opened.	[X] Pass [ ] Fail	Redo Step
4.	@IUC 'aldars': enter "**si**"	IUC Displays: Specialist can login	[X] Pass [ ] Fail	Stop Test
5.	@AUC 'adas' prompt: enter "**cl 96**"	AUC Displays: Config 96 loaded.	[X] Pass [ ] Fail	Stop Test
6.	@ISC 'login': **enter 'isi'**, then 'test12'	IPS SI default screen is displayed.	[X] Pass [ ] Fail	Stop Test
7.	Start IPS test "ST-02" w/ RETRY set to YES. @ISC: **"[F8] [F7] ST-02 <13:[RTN]> [SP] <2:[RTN]>"**	@IUC: SUCCESSFULLY malloc(15000)	[X] Pass [ ] Fail	Stop Test
8.	@AUC 'adas' prompt: enter '**sa clean**'	ADAS starts to the Operational State.	[X] Pass [ ] Fail	Stop Test
9.	After ADAS updates MPS, ack IPS 45-50 sec in cycle. @ISC: **"{wait} <2:[F14]> {wait} [F7]"** @IUC: **"{wait for Pong 4 Dump}"** @ISC: **"{wait for 45 second mark} [F7]"**	The IPS Event Windows displays prompt. The ADAS updates the MPS. The IPS switches lightning scripts.	[X] Pass [ ] Fail	Stop Test
10.	When prompted by the IPS, login, report event types 17 & 15 entries, logout, then ack the IPS prompt. @ISI: **"{wait} <2:[F14]> [F6] {wait} [F7]"** @ASC: **"si [RTN] test12 [RTN] [F13] [F7] [F2] [F14] [F11] <7:[RTN]> 17 [F2] [RTN] {wait} [F2] [F14] [F11] <7:[RTN]> 15 [RTN] {wait} [F2] <3:[F14]> [SP] [RTN]"** @ISC: **"[F7]"**	The event is displayed at the ISI. The PC captures the screen prints. The PC captures the report outputs. The ASC displays the 'login' prompt. The event is removed from the ISI.	[X] Pass [ ] Fail	Stop Test
11.	When the IPS test terminates, shutdown ADAS. @ISI: **"{wait} [F7] <2:[F14]>"** @AUC 'adas' prompt: enter '**stop_adas**'	The ISI displays its default screen. The AUC indicates the ADAS is DOWN.	[X] Pass [ ] Fail	Stop Test

TEST # **ST-02** TESTED BY: _____ Jock K. Stratton _____ DATE: _13/FEB/98_ TIME: _03:20_ TEST DIRECTOR'S INITIALS ___

Step	Test Operator Instructions	Expected Response	Observed Response	Fail Action
12.	Output the IML: WMSCR METAR to file. @ISC: **"[F7] [F8] [F7] ST-02 <2:[RTN]> [SP] [RTN] W <2:[DOWN]> <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
13.	Output the IML: MPS ALARM to file. @ISC: **"[F7] ST-02 <2:[RTN]> [SP] [RTN] M <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
14.	Output the IML: MPS DATA RESPONSE to file. @ISC: **"[F7] ST-02 <2:[RTN]> [SP] [RTN] S [UP] <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
15.	Output the IML: DLP AWOS to file. @ISC: **"[F7] ST-02 <2:[RTN]> [SP] [RTN] D <2:[RTN]> {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
16.	Output the IML: ITWS 6 LDD to file. @ISC: **"[F7] ST-02 <2:[RTN]> [SP] [RTN] I <2:[RIGHT]> <3:[DOWN]> [RTN] [SP] [RTN] {wait} [F14]"**	The output file is in directory '/tmp'. The Select Message Log screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
17.	Output the IML: ITWS 6 AWOS to file. @ISC: **"[F7] ST-02 <2:[RTN]> [SP] [RTN] I <2:[RIGHT]> <2:[DOWN]> <2:[RTN]> {wait} <3:[F14]>"**	The output file is in directory '/tmp'. The ISI default screen is displayed.	**[X]** Pass [ ] Fail	Stop Test
18.	@Patch Panel: Re-direct the IPS LOG to the PC.	LOG printer is redirected to the PC.	**[X]** Pass [ ] Fail	Redo Step
19.	Issue the command to Shutdown IPS. @ISC: **"[F8] [F10] [SP] [RTN]"**	The ISI shuts-down and the ISC displays a 'login' prompt.	**[X]** Pass [ ] Fail	Stop Test
20.	After the data is captured, shutdown procomm. @PC: **"{wait} [Alt-F1] [Alt-X] [RTN]"**	The test data scrolls on screen while being captured. Procomm closes.	**[X]** Pass [ ] Fail	Stop Test

- - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - - END OF TEST PROCEDURE - - - -

APPENDIX D

RMS TEST REPORT (March 1998)

DOT/FAA/CT-TN97/XXX

National Airspace System (NAS) Operational Test and Evaluation (OT&E) Integration of the Automated Lightning Detection and Reporting System (ALDARS) Remote Monitoring Subsystem (RMS)

March 1998

US Department of Transportation
Federal Aviation Administration
Communication, Navigation, and Surveillance Engineering and Test Division
Communication/Infrastructure Branch
FAA William J. Hughes Technical Center
Atlantic City International Airport, NJ 08405

EXECUTIVE SUMMARY

This report contains the results of the Operational Test and Evaluation (OT&E) re-testing of the Automated Lightning Detection and Reporting System (ALDARS) Remote Monitoring Subsystem (RMS) for software Versions 4.18 and 4.19. The OT&E was initially performed at the FAA William J. Hughes Technical Center, Atlantic City International Airport, NJ from September 17 to October 24,1997. Fifteen Test Trouble Reports (TTRs) were prepared for the problems encountered during the course of testing. Re-testing (Version 4.19) was conducted from February 5 to March 6 for the purpose of evaluating the status of the original 15 TTR's. Attachment A contains a summary of all the TTRs generated and their current status. Attachment B contains a copy of all the TTRs generated.

The NAS OT&E Integration testing was performed to verify that the ALDARS RMS functioned as an integrated component of the Remote Maintenance Monitoring Subsystem (RMMS), and to ensure that NAS-SS-1000 (Volumes I, III, and V), and ADAS/ALDARS system requirements were satisfied.

OT&E Integration testing of the RMS interface was performed by ACT-330 utilizing the ADAS/ALDARS system at the WJHTC. The Maintenance Processor System (MPS) ACT-330 testbed at the WJHTC utilized a D30 TANDEM Operating System with Version $CM81 Interim Monitor and Control Software (IMCS) resident on a test pathway. The ALDARS decoder version of August 5, 1997 was installed in the IMCS.

OT&E Integration testing concentrated on the ALDARS interface, but included some testing of the previously deployed ADAS. The test strategy centered on the expectation that the addition of ADAS/ALDARS interface would be completed without affecting the operation of the existing system. Monitoring tests were performed for each data point in the ALDARS Logical Units (LU). A PC was used to view IMCS screens and access TANDEM data information. Additional testing was performed on other LUs.

Of the original 15 TTRs, 10 were categorized as major, 2 as minor, and 3 annoyance (reference DOD-STD-2167A). Only four TTRs remain open. They are: 001, 002, 011 and 013. The following is an explanation as to why the four TTRs remain open and suggested resolutions:

001 and 002 - Although these two TTRs remain open they have been downgraded from Priority II (Major) to Other.

011 - During re-testing LUID 2101 (UNIX Console) now toggles from "In Use" to Not In Use", but 2102 (ASC Console) always remains "In Use".

013 - The title of this IMCS screen (LU2A) is incorrect. It should be "WARP Communications", not RWP Communications. Also, LUID 200D should be changed from "comm_rwp" to "comm_warp"

In conclusion, the ALDARS performed satisfactorily during the course of the OT&E. After the TTRs have been addressed, ALDARS should be prepared to make the transition into the production phase. ACT-330 in coordination with program management will determine what level of Regression/ Delta testing will be conducted and at which prototype site(s).

APPENDIX A: TEST TROUBLE REPORT FORMS

All problems noted during the OT&E are documented in the TTRs enclosed. Priority levels are assigned in accordance with guidelines provided in DOD-STD-2167A and are presented below:

a. Priority I (Critical). A problem that does one of the following:

(1) Prevents the accomplishment of an operational or mission essential capability specified by baselined requirements;

(2) Prevents the operator's accomplishment of an operational or mission essential capability; or

(3) Jeopardizes personnel safety.

b. Priority II (Major). A problem that does one of the following:

(1) Adversely affects the accomplishment of an operational or mission essential capability specified by baselined requirements so as to degrade performance and for which no alternative work-around solution is known.

(2) Adversely affect the operator's accomplishment of an operational or mission essential capability specified by baselined requirements so as to degrade performance and for which no alternative work-around solution is known.

c. Priority III (Minor). A problem that does one of the following:

(1) Adversely affects the accomplishment of an operational or mission essential capability specified by baselined requirements so as to degrade performance and for which an alternative work-around solution is known.

(2) Adversely affects the operator's accomplishment of an operational or mission essential capability specified by baselined requirements so as to degrade performance and for which an alternative work-around solution is known.

d. Priority IV (Annoyance). A problem that is an operator inconvenience or annoyance and which does not effect a required operational or mission essential capability.

e. Priority (Other). All other errors.

TTR #	DESCRIPTION	PRIORITY	STATUS
001	Incorrect MFC and CDC for LUID 2801 and 2802 returned (LU28 - Printers).	- Other	Open
002	LUID 200B does not reflect alarm status when printers are powered down (LU20 - RMS Master).	- Other	Open
003	Incorrect data point descriptions in Lu 20.		Closed
004	Incorrect values displayed for several data points in LU20.		Closed
005	Incorrect data point values between MPS and ALDARS/RMS for LU2302 and 2303 (MPS Comm.).		Closed
006	Incorrect data point values between MPS and ALDARS/RMS for LU2402 - 2405 (Time Management).		Closed
007	Incorrect data point values between MPS and ALDARS/RMS for LU2505 (Operating System).		Closed
008	Incorrect data point values between MPS and ALDARS/RMS for LU2607 (Software).		Closed
009	Incorrect data point values between MPS and ALDARS/RMS for LU2901 - 2904 (DLP Comm.).		Closed
010	Incorrect data point values between MPS and ALDARS/RMS for LU2D04 (NLDN Comm.).		Closed
011	Incorrect data point values between MPS and ALDARS/RMS for LU21 (Terminal Comm.).	III - Minor	Open
012	LU4005 (Comm. Controllers) appears twice, once on the bottom of page 1, and again at the top of page 2.		Closed

013	Discrepancy in the data point name of LU2A. "RWP Comm." should be "WARP Communications".	IV - Annoyance	Open
014	No threshold changes allowed for LUID 2D03 (NLDN Comm.).		Closed
015	Return of update status at MPS (LU 24) exceeded allowable time. See NAS-IC-25085103.		Closed

ALDARS OT&E Test Trouble Report

System Under Test	Software Release	TTR Status	TTR Number
ALDARS	Ver. 4.19	OPEN	1

Date Problem Found	Date Problem Submitted	Problem Area
9/24/97	10/22/97	ALDARS

Priority	Originator	Organization
Other	PHIL HOANG	ACT-330

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609-485-7395	609-485-5995	phil_hoang@admin.tc.faa.gov

MPS System	MPS Operating System	IMCS Version	Decoder Version
\ACTA	D30	$CM81	August 5, 1997

System Response Message
MFC#43 - State Change, CSC#40 - Normal

Short Description Of Problem
Messages contain incorrect message function and condition status codes.

Detailed Description Of Problem
ADAS/ALDARS RMS sends incorrect message function and condition status codes for LUID 2801(log_status)and 2802 (event_status). These data points should generate alarm and return to normal messages, not state change messages.

When the printers(LU28)are off-line, ADAS/ALDARS RMS incorrectly sends state change messages instead of alarm messages, and includes condition status codes of normal instead of alarm.

When the printers are back on-line, ADAS/ALDARS RMS incorrectly sends state change messages instead of return to normal messages.

NOTE: This TTR was downgraded as a result of Key Site Issue #4

Retest Required	Retest Performed By	Retested In Version
Yes	Don Hartman	4.19

Date Of Retest	Retest Indicates Problem Resolved	Disposition of Problem
2/5 - 3/6/98		OPEN

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
OPEN

TTR Number
2

Date Problem Found
9/24/97

Date Problem Submitted
10/22/97

Problem Area
ALDARS

Priority
Other

Originator
PHIL HOANG

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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
MFC#43 - State Change, CSC#40 - Normal

Short Description Of Problem
No alarm reported for LUID 200B (printers status)

Detailed Description Of Problem
No alarm is generated by the ADAS/ALDARS RMS when the ASC printer and the event log printer are powered off. The status of LUID 200B is not updated to reflect an alarmed condition, and remains in the NORMAL status. This TTR is related to TTR1.

NOTE: This TTR was downgraded as a result of Key Site Issue #4

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
OPEN

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
Closed

TTR Number
3

Date Problem Found
9/29/97

Date Problem Submitted
10/22/97

Problem Area
ALDARS

Priority
4 - Annoyance

Originator
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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Incorrect data point descriptions in LU 20

Detailed Description Of Problem
ADAS/ALDARS displays "Operational Mode" as the description of LUID 2002. It should be "sys_mode" per NAS-IC-25085103, Revision D and E. The MPS displays the correct description.

ADAS/ALDARS displays "Initialization Mode" as the description of LUID 2003. It should be "sys_init" per NAS-IC-25085103, Revision D and E. The MPS displays the correct description.

ADAS/ALDARS displays "RMS/MAINT RESET" as the description of LUID 2004. It should be "mp_reset" per NAS-IC-25085103, Revision E. The MPS displays the correct description.

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
Closed

TTR Number
4

Date Problem Found
9/29/97

Date Problem Submitted
10/22/97

Problem Area
MPS Decoder

Priority
2 - Major

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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Incorrect values displayed for several data points in LU20

Detailed Description Of Problem
ADAS/ALDARS displays "Normal" for LUIDs 200C, 200D, 200E, 209C, and 209A, but MPS displays "Not Monitored" for those datapoints.

In accordance with NAS-IC-25085103, Revision D and E, the only recommended values for these data points are "normal" and "presence of an alarm"

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test	Software Release	TTR Status	TTR Number
ALDARS	Ver. 4.19	Closed	5

Date Problem Found	Date Problem Submitted	Problem Area
9/29/97	10/22/97	ADAS/ALDARS

Priority	Originator	Organization
2 - Major	PHIL HOANG	ACT-330

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MPS System	MPS Operating System	IMCS Version	Decoder Version
\ACTA	D30	$CM81	August 5, 1997

System Response Message
N/A

Short Description Of Problem
Discrepancy in data point values for LUIDs 2302 and 2303 (MPS Comm.).

Detailed Description Of Problem
MPS displays "569" for the datapoint value of LUID 2302, but ADAS/ALDARS displays "168".

MPS displays "566" for the datapoint value of LUID 2303, but ADAS/ALDARS displays "167".

Retest Required	Retest Performed By	Retested In Version
Yes	Don Hartman	4.19

Date Of Retest	Retest Indicates Problem Resolved	Disposition of Problem
2/5 - 3/6/98		Closed

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
Closed

TTR Number
6

Date Problem Found
10/1/97

Date Problem Submitted
10/22/97

Problem Area
MPS Decoder

Priority
2 - Major

Originator
PHIL HOANG

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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Discrepancy in data point values for LUIDs 2402, 2403, 2404, and 2405

Detailed Description Of Problem
ADAS/ALDARS displays "0" for the values of LUIDs 2402, 2403, 2404 and 2405, but MPS displays "Not Monitored".

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
Closed

TTR Number
7

Date Problem Found
10/1/97

Date Problem Submitted
10/22/97

Problem Area
ADAS/ALDARS

Priority
2 - Major

Originator
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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Discrepancy in data point value for LUID 2505

Detailed Description Of Problem
MPS displays "2998" for the value of LUID 2505, but ADAS/ALDARS displays "2876".

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
Closed

TTR Number
8

Date Problem Found
10/1/97

Date Problem Submitted
10/22/97

Problem Area
ADAS/ALDARS

Priority
2 - Major

Originator
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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Discrepancy in data point value for LUID 2607

Detailed Description Of Problem
MPS displays "77280" for the datapoint value of LUID 2607, but ADAS/ALDARS displays "30912".

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
Closed

TTR Number
9

Date Problem Found
10/1/97

Date Problem Submitted
10/22/97

Problem Area
ADAS/ALDARS

Priority
3 - Minor

Originator
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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Incorrect datapoint description between MPS and ADAS/AlDARS RMS

Detailed Description Of Problem
ADAS/ALDARS RMS LU4001 displays "NADIN/LCN Controller", and the MPS screen LU4001 displays "ctlr_stat_0".

In accordance with NAS-IC-25085103, Revision D and E, the recommended datapoint description for LU4001 is "ctlr_stat_0".

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test	Software Release	TTR Status	TTR Number
ALDARS	Ver. 4.19	Closed	10

Date Problem Found
10/1/97

Date Problem Submitted
10/1/97

Problem Area
ADAS/ALDARS

Priority
2 - Major

Originator
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MPS System	MPS Operating System	IMCS Version	Decoder Version
\ACTA	D30	$CM81	August 5, 1997

System Response Message
N/A

Short Description Of Problem
Incorrect datapoint value between MPS and ADAS/ALDARS RMS for NLDN Communications (LUID 2D).

Detailed Description Of Problem
ADAS/ALDARS RMS displays "27664" for LU2D02, but MPS displays "0".

ADAS/ALDARS RMS displays "1" for LU2D04, but MPS displays "NOT MONITORED". In accordance with NAS-IC-25085103, Revision D and E, the recommended value for LU2D04 should be in the range of 0 to 4294967295.

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
OPEN

TTR Number
11

Date Problem Found
10/22/97

Date Problem Submitted
10/22/97

Problem Area
ALDARS

Priority
3 - Minor

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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Incorrect datapoint value on the MPS for LUID21 (Terminal Communications).

Detailed Description Of Problem
ADAS/UNIX console was logged off and unplugged, however LU2101 for MPS displays "In Use". (This function is now OK.)

ADAS/ASC console was logged off and unplugged, however LU2102 for MPS displays "In Use".

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
OPEN

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
Closed

TTR Number
12

Date Problem Found
10/20/97

Date Problem Submitted
10/22/97

Problem Area
ALDARS

Priority
4 - Annoyance

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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Duplication of LUID datapoint and descriptions.

Detailed Description Of Problem
ADAS/ALDARS RMS displays LU4005 twice; once at the bottom of page 1, and again at the top of page 2.

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
OPEN

TTR Number
13

Date Problem Found
10/1/97

Date Problem Submitted
10/22/97

Problem Area
ALDARS

Priority
4 - Annoyance

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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Discrepancy in the datapoint name of LU2A (WARP Communications).

Detailed Description Of Problem
ADAS/ALDARS RMS displays "WARP COMMUNICATIONS" for LU2A, but MPS displays "RWP Communications" . It should be "WARP Communications" per NAS-IC-25085103, Revision D and E.

Also, LU200D description should be updated from "comm_rwp" to "comm_warp".

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
OPEN

ALDARS OT&E Test Trouble Report

System Under Test
ALDARS

Software Release
Ver. 4.19

TTR Status
Closed

TTR Number
14

Date Problem Found
10/6/97

Date Problem Submitted
10/22/97

Problem Area
ALDARS

Priority
2 - Major

Originator
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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
No threshold changes allowed for LUID 2D03

Detailed Description Of Problem
Could not perform threshold changes from ASC.

Retest Required
Yes

Retest Performed By
Don Hartman

Retested In Version
4.19

Date Of Retest
2/5 - 3/6/98

Retest Indicates Problem Resolved

Disposition of Problem
Closed

ALDARS OT&E Test Trouble Report

System Under Test	Software Release	TTR Status	TTR Number
ALDARS	Ver. 4.19	Closed	15

Date Problem Found
9/30/97

Date Problem Submitted
10/22/97

Problem Area
ALDARS

Priority
2 - Major

Originator
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MPS System
\ACTA

MPS Operating System
D30

IMCS Version
$CM81

Decoder Version
August 5, 1997

System Response Message
N/A

Short Description Of Problem
Updated status message took more than the required time per ICD.

Detailed Description Of Problem
When the alarm for LUID 2401 was cleared, the updated status took approximately 5 minutes to show up on the MPS site status screen for LU 24 (Time Management).

Retest Required
Yes

Date Of Retest
2/5 - 3/6/98

Retest Performed By
Don Hartman

Retest Indicates Problem Resolved

Retested In Version
4.19

Disposition of Problem
Closed

APPENDIX E

DLP TEST WAIVER LETTER